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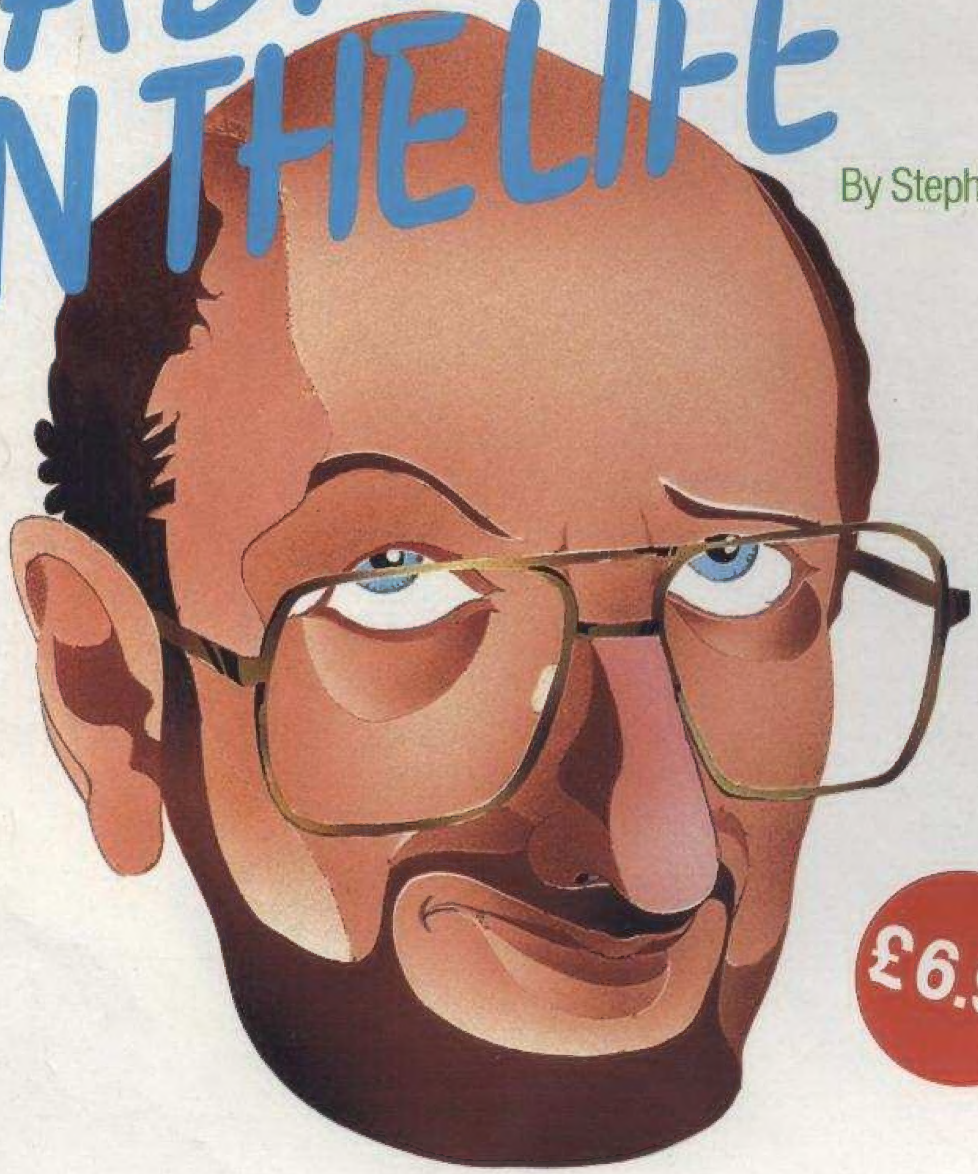

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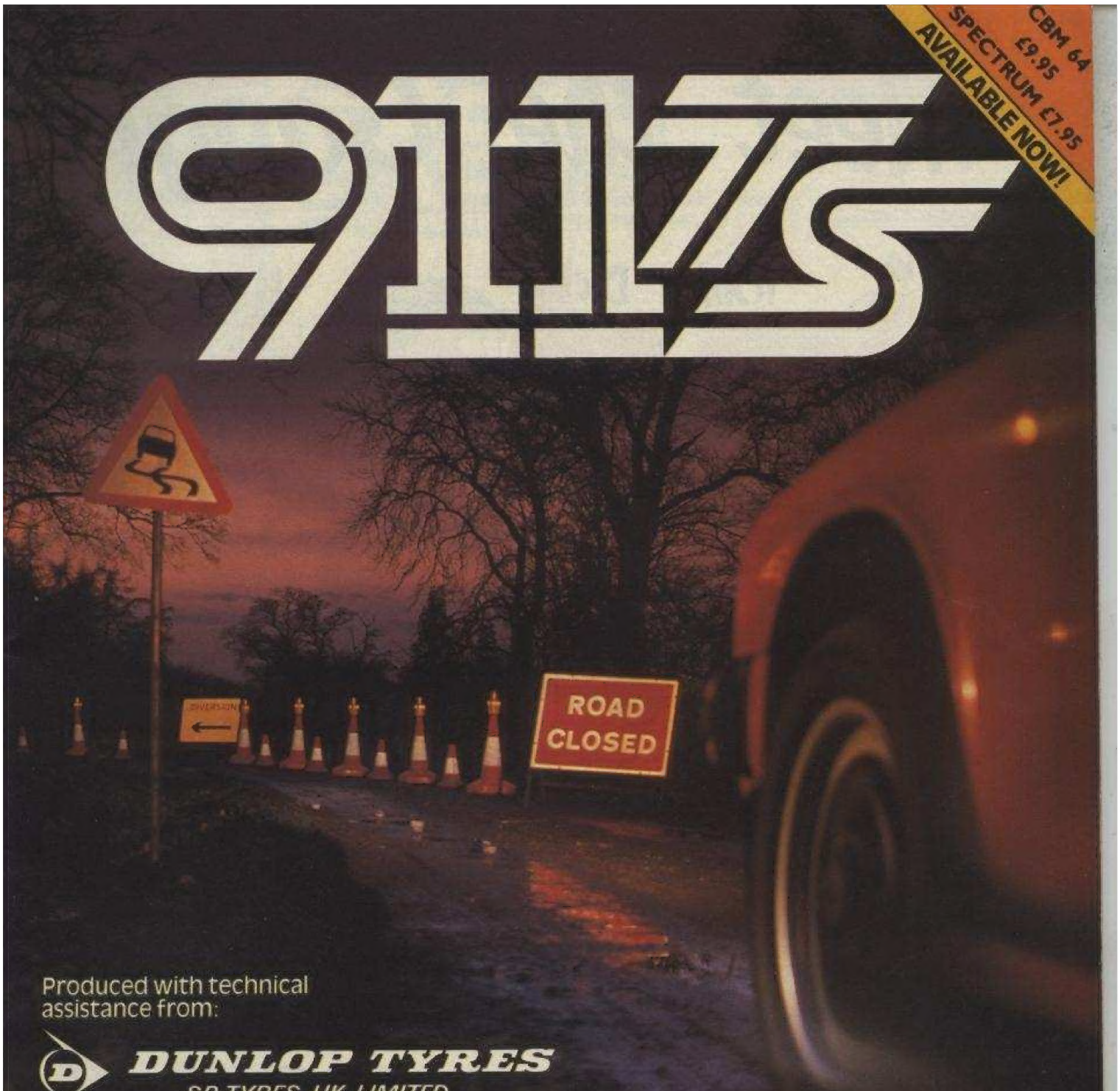

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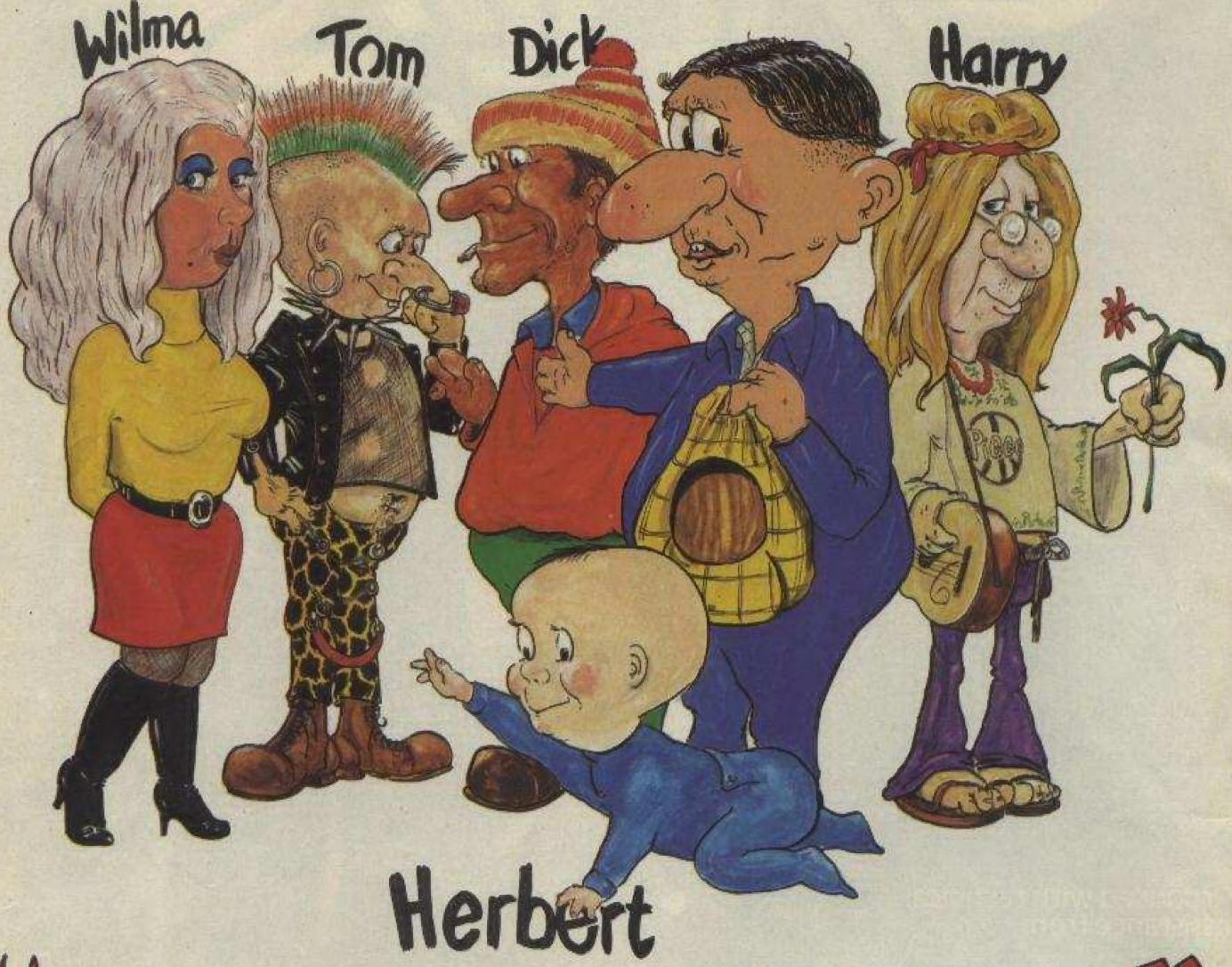

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CRASH

ZX SPECTRUM

ISSUE No. 16 MAY 1985

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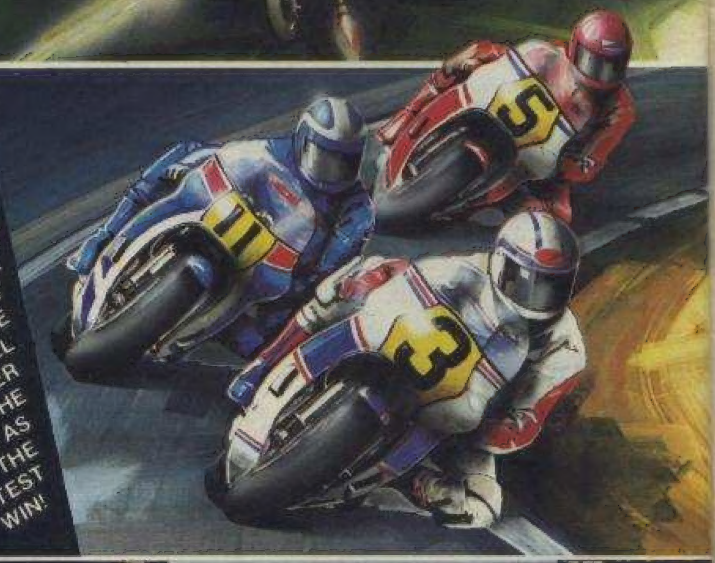

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SAYING 'YES' TO SOFTWARE

IN HIS introductory editorial this month, I notice Derek Brewster complains about the lack of decent software in shops; and again I have seen his reference to the difficulty many readers have experienced in trying to obtain the excellent adventure *Out of the Shadows* by Mizar (featured last month). At the annual Computer Trade Association's 'Award Dinner' in February, Christian Penfold of Automata (who won the Best Program of the Year for *Deus Ex Machina*) took the opportunity of the 'thank you' speech to attack software distributors and retailers for the fact that at that time they had only been able to sell some 700 copies of the program. Christian might be interested, therefore — as well as CRASH readers, to note that Mizar have so far only been able to sell some 300 of their *Out of the Shadows* although it was CRASH Smashed and definitely a game Derek raved over.

In one of the computer trade papers (I think it was *Computer Trade Weekly*) a shop keeper replied to Penfold's attack by saying that *Deus Ex Machina* simply did not sell when he put out three copies — it was not wanted by the public. This, of course, could well be true — very often the public do not want something that is both 'very different' and also a bit pricey; but the real point is being missed — with only 700 copies out on the shelves, it's visibility is extremely tenuous. More praise, then, to the angry shop keeper who at least gave it a try. Mizar's problem is really more serious, because in their case none of the major distributors

agreed to distribute the game at all. You might think I'm taking it personally that a CRASH Smashed game should fail so spectacularly to get into the shops — well I am! And so, as readers of this magazine, should you, because it means that through the judgement (or lack of it) of a tiny handful of people you have been prevented from purchasing a game that it seems many of you want.

On talking to several people a month ago, I discovered that in the case of two distributors they had 'assessed' the game and found it 'not suitable for the Christmas period' — whatever that is supposed to mean. I take it that it means ... 'this isn't an obviously big-selling arcade megazap thriller with a £10,000 promotion budget and besides that it's an adventure game with graphics I don't understand and we all know adventures never sell.....' The men at Microdealer UK were somewhat more thorough, sending their preview copy to an independent reviewer who's job is to assess the game's marketing potential rather than, like Derek, its final player appeal. In all fairness (I've seen the report) the reviewer obviously liked the game a lot, pointed out what he felt to be some of its failings and remarked on the graphics which he felt might put some people off. But for Microdealer the clincher seemed to be that Mizar were a totally unknown company with a first game and no apparent promotion going behind it. Distributing it would be a risk.

To me this seems a terrible indictment of an industry that in only two and a half years has grown from back bedrooms. In the beginning all the great hits came from totally unknown companies with no promotion budgets, and the exciting part of it all is that the situation really hasn't changed all that much. An important chunk of last year's hits and advancements came from the same 'amateur' stable. But before all the major distributors throw their hands up in horror at my remarks here,

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I do want to dispell the commonly held belief of producers that distributors just sit in the middle raking in the money for no risk — the matter is too complex to suggest that the current problem is one of unimaginative money men selling only the product that will make them a fortune. All I am asking is that software distributors take more care in their selection and attempt to follow the trends of what the public may want rather than dictate it.

The problem Derek outlines in his piece is slightly different, though linked. There are both among the specialist computer shops and the large chain stores like WH Smith and J Menzies, managers, counter staff and buyers who are enthusiasts and who care. The following remarks are NOT aimed at them, for in their hearts they know who they are. Sadly they are few and far between, especially in the chain stores. It's as though the computer business has gone stale for them. There's an analogy here between software and the cinema. Falling attendancies at cinemas during the 60s and 70s were put down to TV and the lack of general interest in movies — partially true. Equally proven, however, is that enthusiastic, intelligent and careful buying in of selected films made some cinema managers a big success. It's time that the bigger shop managers really learnt something about the trade they are supposed to be operating and pulled their fingers out of that pension packet. It would be really nice to see software producers not having to cope with the appalling barriers put in the way of magazine publishers when it comes to selling product of the shelves of a shop which is supposed to be there for that very purpose. Perhaps we in Britain should take a lesson from across the water — where Americans always seem to want to say YES first, the British always want to say NO first and last.

SAYING 'NO' TO TAXES

THE DEBATE ABOUT levying a tax on blank cassette tapes has been rumbling since the technology was introduced. The argument is simple enough — blank tapes make pirating music off the radio or from the consequently reduced number of records sold too easy. Criminal piracy suddenly became the naturally done thing. People losing out are first the recording company, then the music publishers and finally the recording artists themselves. Solution: tax blank tapes and pay it as a royalty to the people who have lost out. Problems: there has never been a tax that doesn't eat up a considerable part of its revenue simply through administering it; more importantly, perhaps, there is the moral dilemma — in Britain, thankfully, criminals are still considered innocent until the state has proved otherwise; but this levy is in reality a pre-paid fine which assumes that every purchaser of a blank cassette (audio or video) is a criminal. The Government is planning to introduce such a levy and indications are that it would be about 10% on audio tapes and 5% on video tapes. This in itself is illogical — are we to presume that buyers of blank videos are five percent's worth less criminal? The Government's green paper talks about film and music copyright holders, yet ignores the large quantity of blank tapes now being sold for the purposes of computer owners (not all of whom are pirates)!

Should I, in order to save my latest Quilled adventure game that has taken me ten days to write, have to pay a levy on the cassette on which I am about to save it so that Percy Pigshot and the Swillers, whose latest wailings on the radio have driven me mad over the ten days, may receive a royalty? Let's face it, a law which is both unfair and unworkable should never be allowed to become law.

ADVERTISING PROBLEMS

AT THE RISK of boring CRASH readers who are not interested in some of the more obscure (and usually unmentioned) background manoeuverings, may I say that just at the moment I am a bit sick and tired of Advertising Agencies representing software houses both big and small. As per my earlier remarks about shops, those who behave properly know who they are — I do not refer to them. Those who are behaving badly also know who they are. In the past three months, two agencies handling large accounts have gone into liquidation, leaving CRASH (and other publications) with large debts. In both cases the clients behind the agencies had paid their CRASH bills to the agency, who had just never bothered to pass the payment on. Both agencies have taken a snotty-nosed 'big London Ad Agency' attitude when pressed for payment. One comment was, 'We do not place our clients' advertisements with magazines who try to be difficult.' We were being difficult over the fact that we wanted payment with order in future because they already owed over six month's worth of bills. The following month the company liquidated leaving behind a bill of over £6,000 mostly in the name of a client who has been a faithful supporter of CRASH from the first issue. Since it is the advertising revenue that supports the magazine (without it CRASH would have very little colour and about 20 pages of editorial), the attitudes of such agencies and their representatives directly affects the readership. If agencies do not want to place their clients' advertisements in CRASH that is up to them. What is sickening is when they do place the ads, claim or even demand their high percentage discount (a traditional kickback that has become unwritten law), and then fail to pay the bills on time despite repeated requests and get stroppy when a block is put on them. All too often the client in whose name this is all being done, is unaware of what is going on, and the effect it has upon the close-knit team at CRASH who naturally become disaffected with that software house.

INCREASE

It is now eight months since CRASH went up in price from 75p to 85p. We were hoping to hold the cover price for a bit longer, but due to the disastrous state of the Pound against the Dollar, paper prices have increased dramatically (paper is bought in dollars). On top of that the annual round of pay increases for printers has come, and that extra cost is also passed on. Looking on the brighter side, it is expected that there will be no more paper increases this year, and of course we are all relieved that the Government did not put VAT on periodicals. As a consequence of the above, CRASH, from this issue, must go up to 95p. We trust you all appreciate the reasons, and that the extra 10p will not spoil your enjoyment. ●

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TRIANGLE TANGLE

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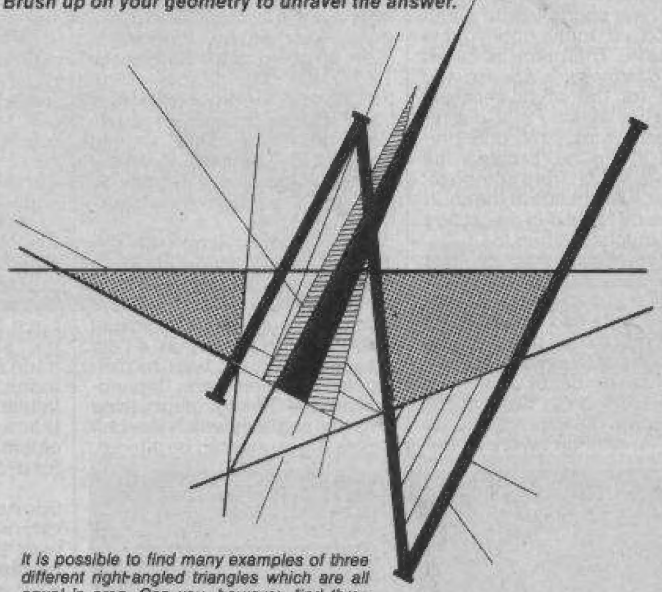


It is possible to find many examples of three different right-angled triangles which are all equal in area. Can you, however, find three such triangles for which every side is a whole number of units (an integer)? Try to devise a program to find the trio with the smallest possible area.

WORKSPACE

TARGET TIME 25 MINS. YOUR TIME.....

MERELY MANGRAM MERELY M

Jonah Barrington stands threateningly over NEW GENERATION's Rod Evans in an attempt to hammer some of the rules of squash into him.

BIG NEWS for me this month (in the bow wave of the Sportscene Roundup in this issue) is that **New Generation** are onto a new software racket. 3D Supremo **Malcolm Evans** has come up with a new sports action simulation based on the noble game of Squash. The game is called *Jonah Barrington's Squash* and it does for the small enclosed court what *Match Point* did for the greensward. I can only preview it this issue, because the copy I have is far from complete, but after a few hands in the court I'm already bathed in sweat and feeling much healthier for it.

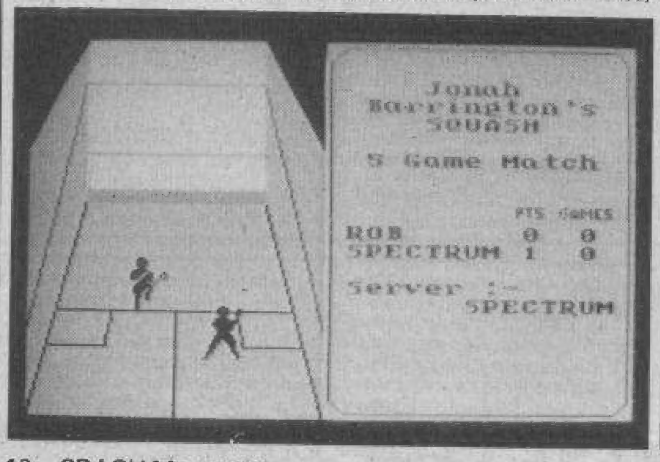
The screen is divided into two sections, left is the actual court, right is the status panel. The court is described in overhead 3D perspective using normal and bright attributes to create the sense of depth. The two players are seen as black animated figures (not the traditional white — it wouldn't work on the screen), and the marking lines are in black and red. You can play against the computer or against another player (each defining their own keys or with dual joystick if you own the right interface) and there is a demo (two computer controlled players) at any of the four levels. The levels, like almost everything else in the program, follow International Squash Racquets Federation rules. They are red (easy), blue, white and yellow (hard), elegantly selected by pressing the appropriate Spectrum colour key.

Player control allows for directional movement with fire to make a fore- or back-hand stroke as appropriate. The ball has a shadow to help gauge its spatial position. One player has a pale grey stripe on the back to distinguish between them. Depending on the timing of pressing fire, the angle at which the ball leaves the raquet can be altered, and I am told there are six different angles built into the program.

Squash is not a game I have played much (a couple of years ago when I was a kid I used to play in the Colonial Club at Lagos in Nigeria — never told you about that did I? Well it was a bit more than two years actually . . .), so I was pleased that the inlay instructions gave a thorough introduction to the rules, including a description of the court.

There is an innovation on *Jonah Barrington's Squash* which is amazing — the program speaks. Speech on programs without the aid of a speech unit isn't new, but never before has it actually worked well. Malcolm Evans has pulled off a real stunt here, and the voice that issues forth is recognisably human, clear and characterful — it should be, it is actually that of Jonah Barrington himself. New Generation are calling this 'Reprosound'. I must admit that the speech part of the program was not yet coupled with the game program, but there's no doubt that when it is *Jonah Barrington's Squash* will be the first game on the Spectrum with genuinely recognisable speech that really adds to the game and its atmosphere.

Jonah Barrington's Squash should be available in your shops from April 23rd, price £7.95. We'll be bringing you a full review next month.



A couple of apologies for last month. First, it seems someone (not me, not me . . .) got the price of Jeff Minter's *Psychedelia* wrong. On the Spectrum it really costs **£6** and not the £7.95 quoted. Second, there were supposed to be four programs reviewed under the 'Review of the Heavens' piece. Unfortunately, due to space (no pun) problems *Star Gazer* by **Eclipse Software** was cut. This would have been less of a problem if the silly old art department hadn't left its entry in the issue's index. *Star Gazer* is re-reviewed in this issue! Sorry Eclipse. Now I know why I was asked to do this column — so I could apologise for everyone else's mistakes!

Sports fans are certainly well catered for this month, what with the Sport-scene Roundup by **Chris (if it's round kick or hit it) Passey**, but on top of that there is the above preview of *Jonah Barrington's Squash* and a review for *World Series Baseball* a CRASH Smashed game from **Imagine**. It seems strange to be using the name of Imagine again, but if **Ocean**, who now own and operate the title, are going to continue putting out high quality programs like this one under it, then Imagine may well continue to boast 'The Name of the Game'. And then there's **Elite**'s new offering for gee gee fans and inveterate gamblers, *Grand National*. Well worth a look at.

Arcade adventure fans don't do too badly either, with the full review of *Dargontorc* from **Hewson Consultants** and two new games from **Games Workshop**, *Chaos* and *Talisman*. Robin Candy has been playing *Dragontorc* since our first preview copy arrived and has driven me mad whenever I'm in the office with complaints about hedgehogs, elves and mean spells. Each time he gets demoted from Master Mathematician or whatever to Minor Sage and Onion, the air turns blue — and you all thought he was a nice boy. Seriously though, it's good to see that Hewsons have managed to outdo *Avalon* with its follow up. The 'sensory animation' feature certainly makes *Dragontorc* into a different and better game.

Both *Chaos* and *Talisman* are original ideas. I haven't played *Talisman* very much, but *Chaos* is very interesting, especially if you play it in a big group.

The game that could well be a contender for the *Elite* stakes on the Spectrum, is the new one from **Melbourne House** called *Starion*. It's graphics are certainly up to the standard of Firebird's *Elite* on the Commodore. Players will have to make up their own minds as to whether *Starion* has quite the extraordinary scope of the famous *Elite*. You'll find the review of *Starion* in just a few pages. . . .

For CRASH readers who are also unfortunate to be car owners as well (I rely on my trusty five-speed bicycle — I've been thinking about trading it in for a C5, a commodity in which, I know you'll never believe this, Ludlow is quite rich. The local car hire company purchased an entire fleet of them for the summer tourist trade. Ludlow is very hilly, but they trundle around quite happily with a bit of extra pedalling — the only serious problem seems to be shoppers tripping over them when they are parked between big cars. Anyway, it looks as though the bike will have to stay now Sinclair has discontinued C5 production — I digress, as Angus Ryall would say . . .) Back to the car owners — our very own **Jeremy (I'd rather travel by horse, but a 1942 Morgan will do instead) Spencer** has taken a look at an interesting program from **Simtron** called *Car Cure*. As the title implies, it aims to tell you why your car is sick, and what to do to put it right.

The bloodthirsty among you, might care to take a look at *Fantastic Voyage* from **Quicksilva** — this is the game that was once going to be called *Blood and Guts*. It was probably sensible of Quicksilva to change the name. And for those who prefer letting blood (as against donating it) there are two good old fashioned zapping games in *Bruce Lee*

and *Spy Hunter*, both from **US Gold** and both CRASH Smashed. (This dreadful gutter press phrase 'CRASH Smashed', by the way, was invented by relative newcomer to the team, **Graeme Kidd** — damned upstart. He's the assistant editor, and therefore in a sufficiently powerful position to issue infernal memos insisting on things like it being used by everyone).

As announced in the last issue, CRASH is acting as the official scrutineers of **A&F**'s *Chuckie Egg 2* Competition. This follow up to what must be the most popular Slimey hi-score game to date, has just arrived by secret courier on the last few available millimetres of my collapsing desk. It's loading NOW....

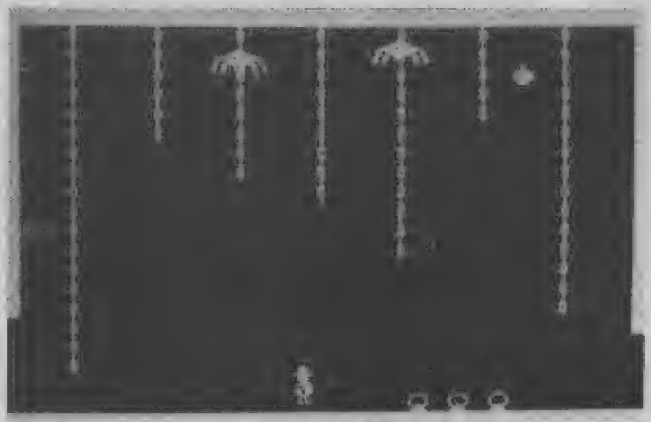
Hang on a mo, while I go and have a quick look....

Right, back again. In the time I've got left, all I can say is, 'IT'S DIFFICULT!' The first screen is a mini-test, as you can't get into the chocolate egg factory, which is guarded by a large dog, unless you go down into another screen, avoid toy monsters and get the dog a bone. I'm afraid I didn't survive inside the first factory screen where the game really gets under way, which requires Harry to jump from rope to rope — hard — and they're infested with spiders.

Where do the eggs come in? Well (thank you Robin), Henhouse Harry has been called in by a chocolate egg manufacturer to sort out a few problems. He has to collect the ingredients required to make the eggs and the parts of the toys that go inside them, while, naturally, avoiding all those little problems that beset any arcade hero. On top of that, Harry has to find many other items without which the task cannot be completed like ladders, girders, keys and so on.

Chuckie Egg 2 is still a platform style jumping game, but many adventure type elements have been added, making this very different from *Chuckie Egg 1*, and there are 120 screens to wade through. More in the main review next month — and don't forget to enter the *Chuckie Egg 2* Competition — the CRASH scrutineers are all ready for you.

The start screen from CHUCKIE EGG 2 — give the dog a bone....



The first factory screen from CHUCKIE EGG 2 — just about as far as Lloyd got on his first quick examination

After the beating they took on *The Great Space race*, **Legend** have come back quite quietly with *Komplex*. It's as good as its name, a 3D line graphics arcade shoot em up with all sorts of overtones, and I have a suspicion, without having looked at it too deeply yet, that it could well become a cult game. It's rather hard to explain, but the Komplex is a defence centre of 119 decks connected by tubes. In fact Komplex is a vast alien construct which is passing for the one and only time through the solar system. The Earth's government has ordered that it should be detained for examination. There is a way of getting it into a stable orbit around the sun — but that's another story.

An incredible factor to be taken into account, is that you can edit *Komplex* to devise your own maps, rearranging all the component parts. It's done with elegant simplicity — merely think up a seven-character name, input it and *Komplex* will devise a map based on that name. Legend claims (I'm no mathematician) that within the program as many as 70 thousand million different maps can be formed. There was a chance to get the game reviewed in this issue, but it did arrive just too late to be able to really get to grips with it, and I believe there are plans afoot to do something fiendishly cunning with it like a review linked to a CRASH map of the game. We'll see next month.

Firebird are having a bit of a shuffle among the **Silver Range** titles on sale. These are the budget-priced ones at £2.50. The shuffle takes place in May. OUT are *Terraforce, Menace, Crazy Caverns, Exodus* and *Byte Bitten*. The five being withdrawn are replaced by seven new titles. IN are *Subsunk* (adventure with graphics where you are a reporter trapped in a scuppered submarine); *Helm* (text adventure in olde fashioned language — before they invented BASIC presumably); *Short's Fuse* (Sam Short secret agent versus Boris and his bombs in a multi-screen arcade); *Helichopper* (multi-screen arcade where you rescue clones from a swamp); *Fahrenheit 3000* (already reviewed in

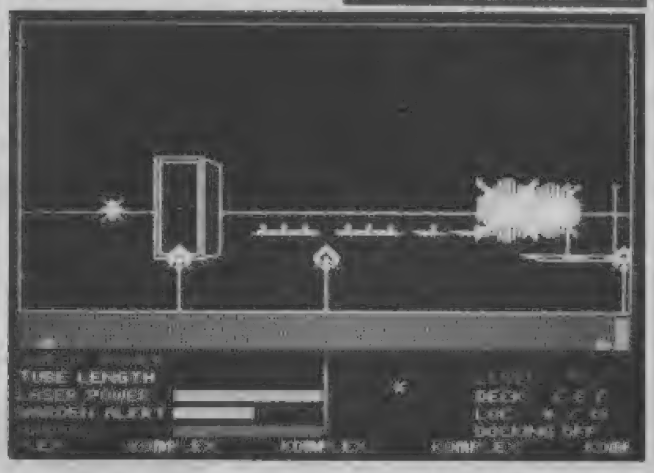
A screen from FARENHEIT 3000

CRASH, originally from Softstone and at £2.50, excellent value); *Don't Buy This!* (the long-threatened compilation of the world's most awful computer games); and finally *Don't Panic* (arcade game where you have to avoid a nasty creature while you load a space ship).

More about these when we get to see them.

A last minute arrival is a new game which will be released through Artic. The programmer sent it through for us to look at. At the moment it remains unnamed (copyright being sorted

Legend's KOMPLEX



MERELY MANGRAMMERELY

out or something). It's a sort of arcade/adventure in an urban and forest setting, played over a large maze consisting of four areas — forest, town wall, town and what I've called 'toytown'. You play a cat collecting kittens one at a time and dumping them in a safe spot (a large tyre). Food must be eaten when it is come across to keep energy up, and during your travels you are hunted down by aggressive dogs. These can be killed off with fluff balls, or momentarily frozen by dropping some purple goo in front of them (can't think what that could be)!. A map of the total playing area can be called up at any time, which shows the positions of kittens, dogs, the tyre and yourself. As you are a cat, you have 9 lives of course. The graphics look very bright and well done, and after only a few minutes play, I should say this will be an engaging game. More when we know what's happening....

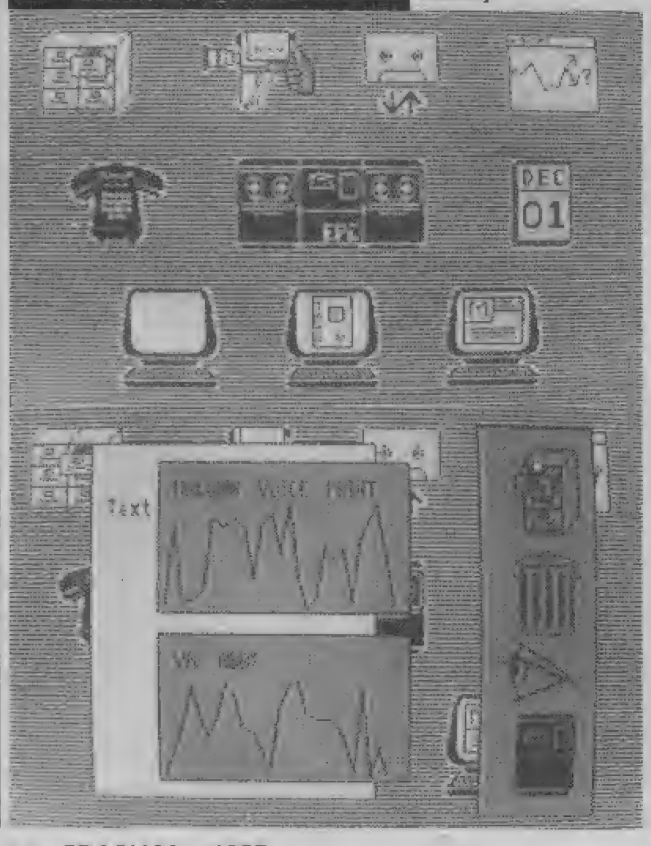
One of the screens from the new and as yet un-named Artic game — this is the forest

We mentioned in the News Input section some time back that the novel by Frederick Forsythe, *The Fourth Protocol* was being turned into a game. Well **Hutchinson Computer Publishing** are releasing the game on the 23rd May. It is an icon-driven adventure (icons are getting terribly popular, aren't they)?

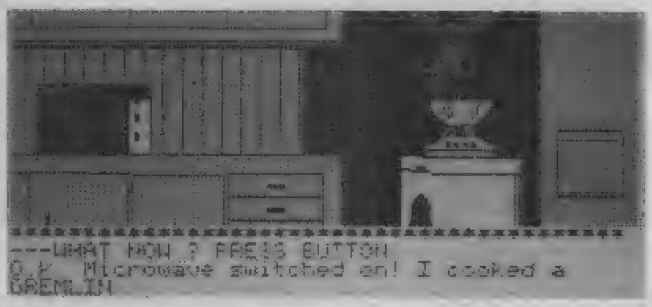
To give you some idea, here are a couple of screen shots. I enjoyed the book greatly, so I can't wait to see what the game version turns out like.

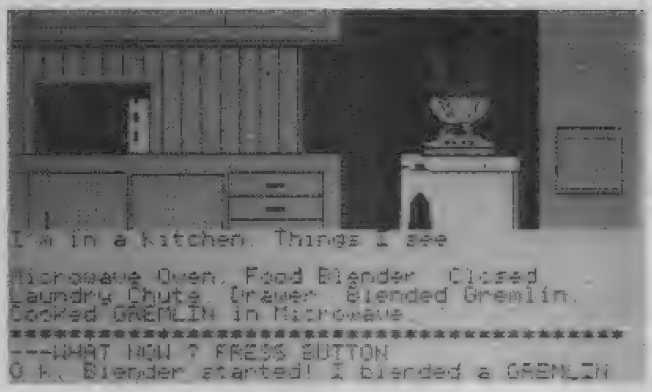
If you're good at your job — this is the event you will prevent from taking place somewhere in Britain....

Pictures by Gwyn Headley



Another brand new adventure has just crossed my desk (that's the little corner left me by Robin Candy's sprawling tips), and it comes from **Adventure International**. Written by Brian Howarth, it's the game version of creepy/cuddly movie *Gremlins*. 'Keep them out of the light, don't ever let them get wet, and never, never feed them after midnight. . . ' it warns on the cover. Good advice for adventure players. I'll leave the ins and outs to Derek in next month's issue, but for a few minutes I got out my ZX Blender and pushed a few of the nasty devils into its maw of perdition. The graphics, as one expects of Adventure International are jolly (if that's the right word in the circumstances), beautifully drawn and with some animation of a simple sort. In just the first few minutes a dull day was lightened by shoving gremlins down the blender, into the fire and baking them in a moderate microwave. It's all good clean fun....





The icon menu pages from THE FOURTH PROTOCOL — THE GAME. Clockwise from the top left, filing, surveillance, video conversation recording or playback, progress (?), date timer, 3-computer information storage and retrieval, and telephone. Working like the Macintosh, the icons are pulled out to the 'fore' of the screen for detailing, with an option to file, zap, examine or return to main screen.

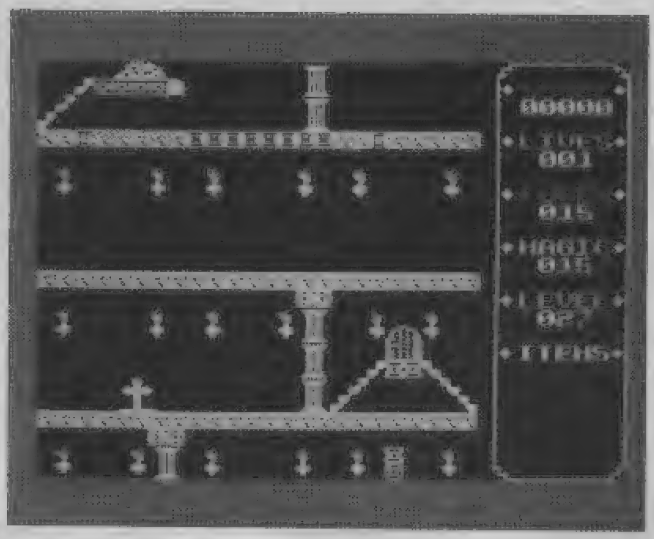
Before signing off, I would be interested to hear from readers whether you think the recent change in the way games are rated in CRASH has made any difference. I'm talking about the OVERALL RATING which used to be calculated as a strict average of the six main ratings, whereas now it has changed to become a rating given independently by the three reviewers concerned (their three figures are averaged between them). In my view this is an improvement, since it removes the illogicalities of having to give a game in every other respect a Smash absurdly high marks for its relatively poor graphics. But I would like to hear in the Forum what you think. ●

LEGEND

48K SPECTRUM

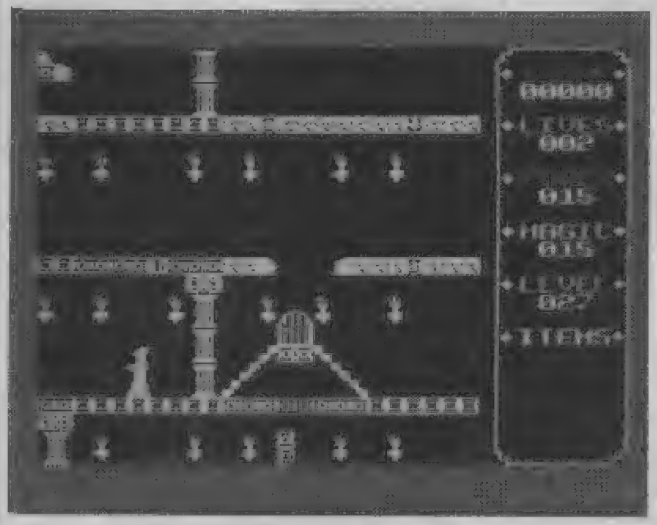
MIGHTY MAGUS

Producer: Quicksilva
Memory required: **48K**
Retail price: **£6.95**
Language: **machine code**
Author: **Ivan & NDP**



Mighty Magus can be best described as an arcade D&D game set in the 30 levels of the Rising Sun Temple. The temple is the haunt of warlocks, wizards and fierce dragons. There is an element of *Jet Set Willy* in as much as the various platform levels are connected by stairways up or down which you can walk, or jump through to ignore them. The overall object is to descend to the depths to confront your arch enemy, the dragon Fraugy The Fierce, and then escape by returning to the spot at which you commenced the game. There is no fixed exit, and each game resets the entire layout of the temple.

The screens scroll along with the movement of your hero, the Mighty Magus, a graphical cousin to The Alchemist from Imagine's game. On his travels he will encounter many hazards, some less obvious than others. The large nasties can be taken care of either by running away, fighting them or casting spells — you can jump on top of them too. Fighting and spell casting will rely on your strength versus that of the meanie. The floors are dotted with magic squares which may teleport you somewhere you didn't want to go, or knock you backwards. Other squares kill the unwary and some spring lethal traps. Chests and rubbish heaps will yield up various useful and not so useful goodies when they are searched. To the right of the playing area is a status panel with score, lives, power, magic levels and items collected.



CRITICISM

●'Quicksilva haven't been very active for quite a while now and I thought that they may have gone out of existence. *Mighty Magus* is one of the more complex platform games I've played for a while — more like a *Jet Set Willy*, but greatly enhanced. It's something of a weird idea to be thrown into dungeons all on your own, but it does add to the atmosphere of the game, with lively monsters ready to rampage against you. Attention to detail is very good and the flaming torches are excellently done, they do look as though they really are burning. One of the ideas I liked is the 'search' function, where an object may look innocent enough, but if you search further, more may be revealed — something to constantly keep your interest. The graphics and colour use is generally very good, although there is not much sound. This game has many levels, that is room levels, not skill levels, although it is obvious to state that it gets more difficult the lower you go down. *Mighty Magus* is quite original, and although it might resemble *Jet Set Willy* at first, it is in fact the first real departure in platform games from the *JSW* clone. I think most people are going to find this an entertaining game.'

●*'At first sight, without reading the instructions, this game seems to be one of those that is absolutely impossible as you keep walking over traps and getting killed off. But on further examination of the* Mighty Magus, *I've found that although it is very complex, it is possible to complete. It has nice graphics — a shame some of them are very jumpy — its sound is very poor although there's a good tune. The traps on the floor are very infuriating, only a few kill you like the arrows and the walls closing in on you, the rest just drain you of power. The floor is also very confusing as there are different types of 'brick' with different patterns and they keep changing so you are always jumping over something that turns out to be harmless and often landing on a real trap. I enjoyed playing* Mighty Magus *as there was a lot of variation in play.'*

●'A bit like Imagine's *Alchemist* was my first thought, but the game is actually very different and much more complicated to play. It relies heavily on the fact that the dungeons are recreated every game, and that the tiny details of the 'brick' floors keep you literally on your toes in case you tread on a trap 'brick' and spring the trap. This can be bewildering at first and then annoying when you think you know what you are doing. But the game is original and engaging and I did find it moderately addictive.'

COMMENTS

Control keys: preset are A/D left/right, S to search, F to fight, J to jump and 1 - 9 to select spell strength, but the main control keys are also user-definable
Joystick: almost any via UDK
Keyboard play: you have to be quick making up your mind which strength keys to go for sometimes, generally responsive
Use of colour: above average
Graphics: reasonable although a bit on the small side, and the 'bricks' are purposefully confusing
Sound: poor
Skill levels: 1 with progressive difficulty
Lives: 4
Screens: 30 floor levels of scrolling horizontal screens
General rating: quite an original idea and entertaining.

Use of computer	81%
Graphics	78%
Playability	85%
Getting started	83%
Addictive qualities	81%
Value for money	80%
Overall	82%

HOW THE RATINGS WORK

IMPORTANT CHANGE!!!

After more than a year of maintaining the CRASH rating system, we have made one important alteration. The **OVERALL** rating is **no longer calculated as a strict average of the previous 6 ratings.** Now each reviewer is independently allowed to judge the Overall worth of a game as a **separate rating.** We hope this will help overcome some of the inconsistencies which readers have noted in the past.

OVERALL PERCENTAGE is now a separate and distinct rating. ALL ratings are an average of three reviewers' opinions.

Under 30% — a waste of time
31-40% — generally poor but may appeal to some
41-50% — below average to average
51-55% — reasonable average if game type enjoyed
56-60% — above average to good
61-70% — good on most counts, generally recommended
71-80% — very good, recommended
81-89% — excellent
Above 90% — a CRASH Smash, words fail. . . .

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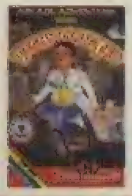

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MICKEY THE BRICKY – Four screens packed with fun.

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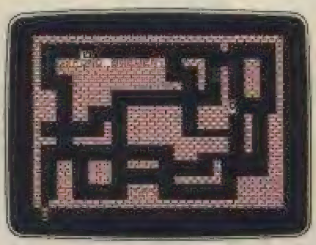
DUCK! – Comedy and music in this duck shoot.

013 Arcade BBC MICRO B
ACID DROPS – Fly through to tackle the mutant spinners.

022 Arcade BBC MICRO B
ESTRA – Recover the sacred statue of Estra the snake god.

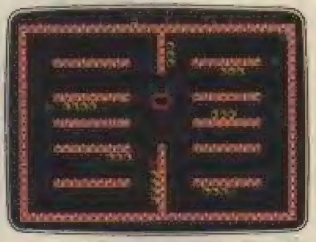
023 Arcade/Strategy BBC MICRO B
THE HACKER – Terminal to modem, telephone network to mainframe.



006 Arcade SPECTRUM 16K/48K
RUN BABY RUN – Multi-car cop chase and shoot-out.

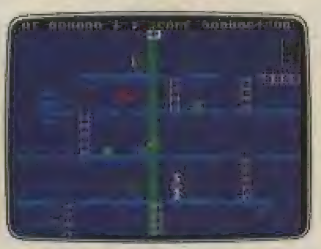
009 Arcade SPECTRUM 16K/48K
TERRA FORCE – Terra man defends earth against all odds.

010 Arcade SPECTRUM 16K/48K
MENACE – What happens when teacher turns his back.



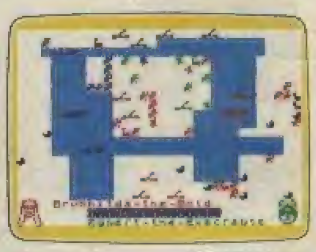
021 Arcade SPECTRUM 16K/48K
CRAZY CAVERNS – Ten crazy caverns, ten hungry mouths to feed.

007 Arcade SPECTRUM 48K
EXODUS – Strange creatures emerging from the pits.



014 Arcade/Strategy SPECTRUM 48K
MR. FREEZE – Six compartments, each tougher to de-ice.

016 Arcade Adventure SPECTRUM 48K
BOOTY – Twenty holds crammed full of pirate loot.



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VIKING RAIDERS – A test of strategy against the computer or friends.

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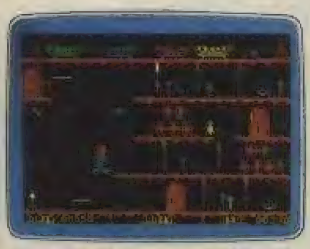
BYTE BITTEN – Solve the clue then play Sea King.

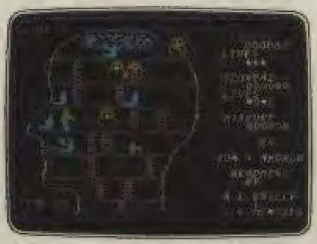
012 Adventure SPECTRUM 48K
THE WILD BUNCH – Accused of murder, hunt the real killer.

018 Arcade COMMODORE 64
EXODUS – Strange creatures emerging from the pits.

015 Arcade/Strategy COMMODORE 64
MR. FREEZE – Six compartments, each tougher to de-ice.



017 Arcade Adventure COMMODORE 64
BOOTY – Twenty holds crammed full of pirate loot.



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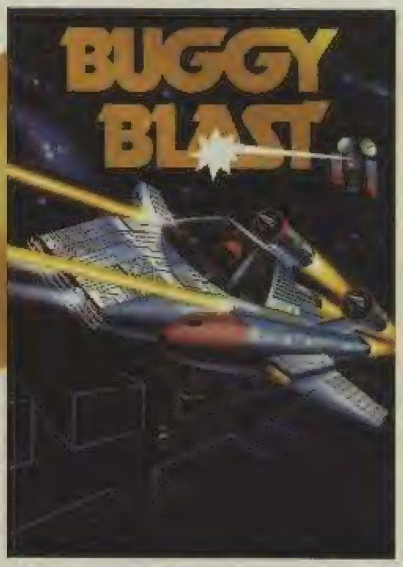

201 COMMODORE 64
DEMONS OF TOPAZ –
100% Graphic Exploration.

202 SPECTRUM 48K
BUGGY BLAST –
Space Mission Simulation.

firebird

S·T·A·R·I·O·N

A CRASH Smash

STARION

Producer: Melbourne House
Memory Required: **48K**
Retail price: **£7.95**
Language: **machine code**
Author: **David Webb**

Melbourne House have become established as one of the more innovative of software houses. *Starion*, their latest game introduces concepts and ideas that are both new and complex.

The story takes place in the year 2010 and you play the role of Starion, fresh from the space academy. You have been trusted with the one and only timeship, your mission, to rectify the devastation wrought in the space-time continuum by evil aliens. The aliens have wrought this evil by removing items of historical significance from important events. Consider this, suppose that some time in the future an alien comes back into the past and abducts Starion, then he won't be around to undo the evil work of the aliens and the universe will indeed be a rotten place in which to live. The letters that go to make up Starion's name could form an alien cargo as they are transported away from their correct time zone — if you can collect those letters and re-arrange them to form the correct word, Starion, you will be allowed access to the next stage of the game.

So the first part of the task is to patrol the outer regions of space intercepting and destroying the alien ships. As you attack and destroy each enemy ship it will re-assemble and form a letter, this must be collected and stowed aboard your ship. Later, when you have collected the required number of letters, you will be asked to unscramble them, rearranging them to make a well known word that fits some period in time. So far so good. Now you must locate the entrance to a time warp and fly into it, whereupon a time grid will be displayed. Each grid has nine time zones and you must decide which of the time zones contains the historical event that your cargo will fit (were it V-I-C-T-O-R-Y you might think of Nelson and the Battle of Trafalgar — get the picture!)?

When you land you will be told the problem, if the cargo you recovered solves it then you will be rewarded with fresh oxygen and fuel to enable you to fly off and solve the next zone. However, should your cargo not fit the current problem then you will need to attack the other enemy ships found within that zone, this will enable you to gain enough energy to escape and find the correct zone.

To give you some idea of the task ahead here's the nature of the space-time continuum. In all there are 3 time blocks, within each block there are 9 time grids, each time grid has 9 time zones and space has 3 dimensions. Big isn't it? in fact altogether *Starion* has 243 time zones to be solved. After correcting history in the 9 zones of a grid you will gain access to the next one by solving the anagram made from the first letter of each of the zone words. Access to the next block requires the first letter of each of the grid words to be solved. To reach 'event zero' and the ultimate rank of 'creator' the player must form the pass-word from the first and last letters of each of the three grid words.

If this begins to sound like an educational program, don't panic. The screen display shows instantly that this is a 3D space arcade game. The machine provided for *Starion* makes the space shuttle look like a hot air balloon. The cockpit view uses wire frame 3D to describe the enemy ships and letters. Below, the instrument panel indicates details on speed, hull temperature, enemy location, pitch, role, yaw, fuel and oxygen levels. The bi-planar scanners show the location of other objects, horizontally and vertically, be they ships, mines, missiles or just debris. Above the scanners the year of the current time zone is shown, vital when trying to solve the time zone

S·T·A·R·I·O·N

problems. The hull temperature is also vital because the outside temperature will increase with speed and excessive lazer fire. The hull can also be destroyed by direct hits from enemy weapons or collision with space rubbish. The general debris cannot be destroyed so you will be forced to steer around it.

Points are awarded in accordance with the speed with which the player completes each stage of the game, as well as for the destruction of enemy targets. The player will be promoted depending on the number of zones, grids and blocks that have been solved. Finally, despite the loneliness of outer space, *Starion* is a two-player game.

CRITICISM

● 'Somebody is bound to say it so I want to be the first. *Starion* is Melbourne's answer to *Elite*. A CBM expert was seen openly weeping when he saw the quality of the graphics compared to the CBM *Elite*, and with very good reason. Words cannot adequately describe the immense realism that the graphics manage to portray — to say that they are astonishing, astounding, phenomenal and . . . well startling, doesn't even begin to say it. The task set by the game, collecting letters by shooting the enemy ships, may seem a little uninteresting but when you have played the game for a while you quickly realise just how clever the idea is. Not only does the game test an arcade gamer's skills to the limit but the word and historical puzzles force the grey matter into overdrive. I am very impressed. Congratulations to David Webb and Melbourne House, this one is special.'

● 'Starion — *this must be a new concept in 3D graphics. Everything is drawn with extreme precision very quickly and very smoothly. I'm surprised by how complex shapes can be spun, rotated and whizzed towards you — I must say, the effect is amazing. You may have thought that* Darkstar *was fast — yes it was, but all the shapes were simple ones. This one isn't quite that fast, but you couldn't play* Darkstar *on the fastest speed anyway. You can mindlessly blast your way through space and collect various letters to make up an anagram. These anagrams aren't too long, but they still take a considerable time to work out, all of them being obvious — once you know what they are! One thing that confused me was the X, Y, Z axes scanner, I just couldn't figure out how best to use it but I'm sure it will come eventually. This is a fun-packed, all-action, thinking game where the player requires a little more skill than just fast responses to progress throughout the game.*'

● 'My initial reaction to this superb game is that it's a little like *Code Name Mat* — at least in scope, and certainly in ship handling. The bi-planar scanners work very similarly, and take a little getting used to. The speed and movement of the 3D wire frame objects is marvellous. I also like the front end, where controls are defined while a white bar loops through the options — perhaps a trifle fast however. Beware the effect of entering the space time continuum because the effect looks as though the program is crashing — rather spectacular! *Starion* has a lot of playability, and due to its size, I think its addictive qualities are likely to be high. Absolutely worth the money.'

COMMENTS

Control keys: all definable, 4 directions and fire, plus accelerate and deccelerate
Joystick: Kempston, Sinclair 2, Cursor type
Keyboard play: very responsive but complicated without a joystick
Use of colour: simple in space, but excellent generally
Graphics: excellent wire frame, very fast and extremely smooth, good instruments
Sound: continuous, not over exciting, toggles on/off
Skill levels: 1
Lives: 5
Screens: scrolling action set in infinity!
Special features: 1 or 2 player games
General rating: an excellent game which combines arcade skills with nifty thinking and which could well be played by two on the same side as well as against each other.

Use of computer	92%
Graphics	95%
Playability	93%
Getting started	89%
Addictive qualities	90%
Value for money	92%
Overall	**94%**

A CRASH Smash

DRAGON-TORC

Producer: Hewson Consultants
Memory Required: **48K**
Retail price: **£7.95**
Language: **machine code**
Author: **Steve Turner**

Here is the second adventure movie, *The Dragontorc of Avalon*. Well yes of course it's a sequel to *Avalon* (rev. issue 10) but there are some important changes that should make this a very different game to play. As with *Avalon* the game comes complete with a map, a code sheet and a fairly exhaustive instruction sheet. The screen effects are the same so the player still needs that degree of arcade skill to direct Maroc and be quick on the draw with a spell. Even the screen surround is similar to *Avalon* as is the way one invokes spells using the pointer on the scroll, and of course Maroc hasn't changed a bit, dear old soul.

The *Dragontorc* story is different to that of *Avalon* so to help set the scene a little tale. . . . Many years ago this land was ruled by Bran. Now he was a realistic sort of chap who knew that one day he would die, which would leave his only son and heir as ruler. Bran's son could be generously described as a spoilt wimp, the sort of chap that drives around pub car parks in Dad's Porsche (not in those days, of course, the pubs didn't have car parks). To make his son a strong and mighty leader Bran sought the power of magic and bade the Lords of Lore to make The Dragontorc. This was to be an awsome thing, so great were its powers that even a C5 would pale into insignificance. But power such as this went straight to the young wimp's head and after Bran's death he used the power for evil, not for good. Eventually the Lords of Lore managed to recover the Torc, but they dared not destroy it lest the power of magic itself fade, instead they forged five crowns which they scattered across the kingdom. Now the Torc is harmless, until the five crowns are joined together again. Enter Morag the Shape-shifter, she yearned for the power of the Torc and had used her evil on the Kings of the land so while they warred with each other she could steal the five crowns and inherit its terrible power. Morag has already managed to get the Crown of Dumnovia. Only Maroc can thwart her plans and only he with the help of Merlyn, Maroc's old tutor and prisoner of Morag. Merlyn's first advice 'seek the Ley Rod. . . .'

Essentially the game is played in exactly the same way as *Avalon*. Maroc has a small collection of spells which he may add to as he progresses, but this time he starts with the 'Bane' and 'Servant' spell as well as 'Move'. The spells work in the same way as in *Avalon*, for example 'Move' and 'Unseen' are background spells and can be used together, this would allow Maroc to be invisible while still exploring. The disadvantage with background spells is that they are a persistent drain on energy. There are a some new and more powerful spells hidden away which you will need to deal with the extra nasties that will try to impede your progress.

The game itself is larger, having more locations, more treasures and more dangers. But the most important change of all is that *Dragontorc* uses a trick called sensory animation. All of the creatures that Maroc meets have lives and characters of their own, some are down right belligerent, while others can be persuaded to support your cause. The importance of this feature will become apparent when the game is played, for Maroc to be successful he must enlist the aid of allies. As a general rule 'be nice but be quick'. The system of ranking has been slightly changed, instead of having 16 ranks there are now only 8 subdivided as before 8 times.

CRITICISM

●'It is all too easy to condemn a game simply because it looks like the original. Who can blame publishers for continuing to use a successful theme? Lots of people seem to but I don't think the issue is as simple as that. There comes a time when a well tried system that was once exciting is now positively pedestrian and this is certainly the case with a few recent releases, where you say the graphics are still superb but the story line and objectives are not really different. So have Hewson simply re-vamped *Avalon* hoping that an eager public will snatch it up regardless? I think perhaps not, *Dragontorc* has the advantage in that while the graphics made the game excellent in its own right the the story and tasks that the game set were the ultimate challenge. The graphics are the same, the method of play is the same, some of the characters are the same BUT *Dragontorc* is,

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in itself, hard and challenging to play. Sensory animation adds greatly to this challenge. Let's not be rash, if you only enjoyed *Avalon* for the graphics then there's nothing really new for you here. But if you enjoyed the challenge of *Avalon*, relished the puzzles, revelled in the disasters and setbacks, then *Dragontorc* is for you. Be careful it's a tough one.'

●*'I didn't actually see* Avalon *which is a shame because I would have had some idea of what I had let myself in for. When I was given* Dragontorc *to review, being a simple arcade freak, I can only just appreciate the fantastic qualities of this game. It has excellent graphics that give a slight perspective view, eg paths vanishing into the distance, and its size is enormous. I've had* Dragontorc *for quite a long time and I have hardly reached into the game at all, it took me ages to get out of the first screen but that was because I didn't read the instruction properly. This game didn't appeal to me but that's because I am the sort of person who likes to blast things to kingdom come without having to think too much but I am sure that it will appeal greatly to those of you who enjoy the adventure element.*

●'I thoroughly enjoyed *Avalon* and *Dragontorc* looks as if it will surpass that. It's in the same style as *Avalon* but rather than having to explore rooms the game is set all over ancient Britain so there's forests and caves etc to explore. The 3D graphics are well drawn although there is still that flicker but once your eyes get used to it it's unnoticable. This is a great arcade-adventure with plenty of tasks and challenges. *Dragontorc* is much more involved than *Avalon* and is certainly a worthy CRASH SMASH. The author Steve Turner has created his best game yet, exciting, challenging and highly addictive. It's also pretty damn hard so I shall expect you all to be sending tips to Rob. The save game facility is valuable as is the feature of not going back to square one after a death. An excellent balance of incentive and difficulty.

COMMENTS

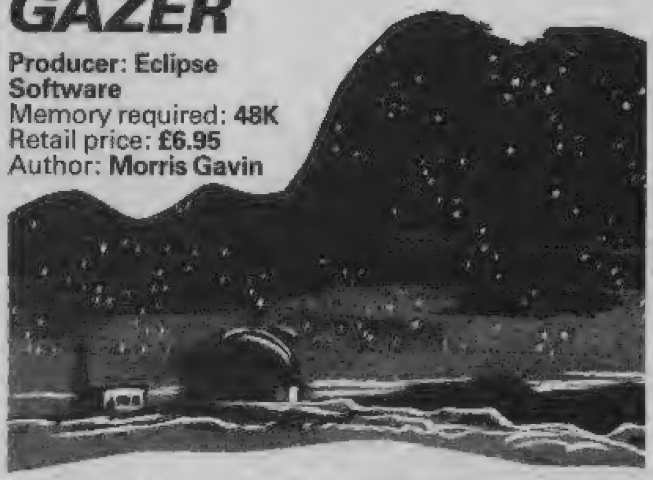
Control keys: A-G/Z-V up/down, B or N/M or SS left/right, H-L fire
Joystick: Kempston,AGF or Sinclair 2
Keyboard play: responds positively
Use of colour: superb
Graphics: more scenery changes than in *Avalon*, but generally similar and excellent
Sound: music is great but there's little else
Skill levels: N/A
Lives: one cannot die
Screen: scrolling, over 250 different locations
General rating: excellent

Use of computer:	85%
Graphics	94%
Playability	92%
Getting started	85%
Addictive qualities	92%
Value for money	90%
Overall	**92%**

Reviews

STAR-GAZER

Producer: Eclipse Software
Memory required: **48K**
Retail price: **£6.95**
Author: **Morris Gavin**



Stargazer comes from the same stable as *Starsphere*, which we reviewed last month. This review should have been in last month as well, but was cut at the last minute because of room. This package has a data base of 340 stars with 34 constellations. As with some of the programs we looked at last month a star map can be plotted but this time the user can only select a view from Europe or North America, giving you only a portion of the northern hemisphere. However it does have a couple of extra options that may make it more useful. Option one allows the user to plot star maps, every star on the map being of the same size and brilliance. The constellations cannot be joined up as with *Starsphere* but instead the name of each of them is shown at the bottom of the screen as they are plotted. This works well while you are watching the plot but once that's complete it's very difficult to spot individual constellations. There is an option for plotting single constellations, in isolation, where some attempt has been made to give scale in size but not brilliance. After the plot the major stars are marked and their names given. The Quiz option poses questions on Latin and English star and constellation names as well as asking questions on such mind-blowing matters as Culmination Months. A small niggle arises here — I became tired of the Quiz mode after five wrong guesses but found no other way to escape back to the main menu other than sit there and let the machine humiliate me for a further five questions.

The last option, Starfax, provides basic information on the prime star of each constellation. this includes a diagram to show the star's magnitude, brightness and position in relation to our Sun. Other facts to be gleaned include the surface temperature, distance in light years from Sol and the apparent colour.

The program is menu-driven, and again the system used is very neat. A great deal of attention has been paid to error trapping, so it should be hard to crash; I managed once but was unable to do so again. On the whole a tidy, well thought out package that has placed an emphasis on facts and figures rather than map plots. the learning and quiz mode should prove to be both fun and useful in an educational environment.

CAR CURE

Producer: Simtron
Memory Required: **48k**
Retail price: **£9.95**
Language: **BASIC & machine code**
Consultant: **GS Harber M.I.M.I.**

Do you ever get bored waiting for your Spectrum to load? are you tired of listening to the hums, beeps and squeaks that emanate from the recorder? You do? You are? Well Simtron have a cure (please don't get too excited), instead of having to watch a highly coloured, well drawn picture you are given a very complicated maze to solve while you wait for *Car Cure* to load. Nice idea but the problem is that the maze repeats itself after seven billion, five hundred and ninety seven million, three hundred and fifty thousand,two hundred and eighty four times (that's 7,597,356,284), so sooner or later you'll get bored with it.

Car Cure is a serious application (we don't just review games you know, we are able to come to terms with real life situations as well as anybody, at least we like to think that we can). It's just as well that this is an expert system since its aim is to turn an idiot into a potential genius in whatever subject the system is concerned with. In this case it's rather obvious, this package deals with the field of automotive electro-mechanical malfunctions — or duff cars. The first thing that one has to consider when dealing with an expert system is the enormous amount of information that they hold. *Car Cure* has a 'knowledge' base of over 900 faults and 300 symptoms, so the possible combinations of results are mindblowing. Bearing in mind the complexity, I am not exactly sure how one can evaluate an expert system when one is anything but an expert. So I hit on the idea of rushing out to the car park, opening the bonnet of Sophia, my car, and ripping out a small but vital part. Pretty neat eh? But the really clever bit is I'm not going to tell myself what I've done, I will rely entirely on *Car Cure* to sort it all out.

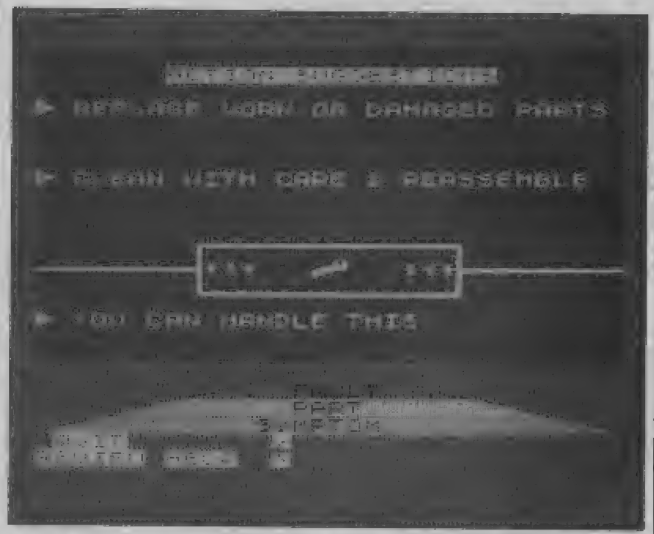
After failing to solve the maze I was confronted with a page that offered options to ask for 'help' or started tracing problems relating to 'symptoms' or 'parts'. One would use the 'parts' option if the faulty part was known. It wasn't so I chose 'symptoms'. The background turned yellow and I noticed in the user guide that the colours have been selected to help a user follow the program. The book says '. . . you set out from the safe house through a cornfield of symptoms (yellow), across a river of parts (blue) into a forest of faults (green) where there is a battlefield of action (red)'. That sounds rather silly but when you come to use the program it is an aid, it also goes to show how well the program has been thought out.

Back to my problem; on the first symptom page I am given a number of options, from 'starting the engine' to 'instruments and warning lights'. Since Sophia will not start I select the first. Another yellow page giving more symptoms: 'starter won't operate'; yes it does: 'engine won't fire'; correct, so select that and yet another cornfield. I select the option that says 'spark not at spark plug HT lead' because it isn't, suddenly I'm in the river (blue for parts). This time I am offered 5 options all concerned with the ignition system. I can choose to examine the system as a whole or look at the distributor,contact breaker, HT leads or coil and wiring. I decide to go for 'HT leads' since there is no spark there. Now I enter the forest and I am asked to check if the leads are damp, perished, loose or disconected, hang on . . . . . No, they seem to be fine, so back to the river and this time I select distributor because that's the bit connected to the HT leads. Again I am in the forest (sounds a bit like *Dragontorc*).

I am now offered a bewildering selection of options some, I can barely pronounce let alone understand, take 'rotor arm centrifugal rev-limiter defective' for example. I notice one option suggests that the 'distributor rotor arm is badly worn', it must be because there's nothing there! I ask the system what to do and the screen turns red, bearing the message 'replace with new' and 'you can handle this'. It just happens that I have a rotor arm in my pocket, what a bit of luck.

Now for the serious user there is a mode called 'extended commands'. This allows the use of more features. 'Mark' allows items on a list to be marked so that the user can keep track of items. Also if you have a a problem that has a number of symptoms one could mark the listed faults for each symptom, this would eventually leave you with a list of common faults. The 'OK' function allows the user to remove faults that have already been checked, thereby simplifying the presentation. Once a fault has been 'OK'-ed then it will not appear again in any list for any other symptom thus avoiding confusion. A trace facility allows the user to mark a fault that is suspected and then the program will trace back through the symptoms to help confirm the fault. Any fault diagnosis session can be saved to tape for use at a later date. Most of the input for the system simply entails the use of the cursor keys or simply answering yes or no.

My own example did little to demonstrate the depth of problems that are dealt with. *Car Cure* is better suited to complex problems such as one would find with the gearbox, clutch or brakes. These are the problems where mortals and idiots are left floundering.



CRITICISM

● 'There is no intention that *Car Cure* should replace the workshop manual, it cannot hope to present the detail required to actually carry out repairs. However it will prove valuable in the first stages of fault diagnosis, often the hardest part. Once the fault has been located a manual should be used in order to carry out the necessary work. The package works extremely well, a great deal of effort has gone into making it user friendly as well as functional. If I had to make a criticism it would be this; sooner or later the program is going to leave you with a lot of possible options to follow and no clear indication as to how they should be selected. For example if I know that the engine runs badly I am eventually presented with a parts menu that allows me to select between routine maintenance for the fuel system, carburettor, fuel pump, fuel lines and tank or fuel injection. It would have been a great help if some small indication could have been given to help me isolate the search to one of those options otherwise I will have to check for each fault under each part. Of course the fault can be isolated much more quickly if a fault has more than one symptom because complementary faults have fewer symptoms in common. On the whole I would say this was a very worthwhile package if you are one of those who can only manage to lift the bonnet and stare with awe into the engine. I shall recommend *Car Cure* to Lloyd, God knows he needs it!.

Jeremy Spencer

COMMENTS

Control keys: cursor keys
Use of colour: imformative
Graphics: none
General rating: bit pricey but should prove invaluable to the car buffs

Value for money	**85%**
Overall	**75%**

Minder

Available across a range of micro computers.

THAMES

dk'tronics
the games name

Minder is a Euston Films Production for THAMES TELEVISION
• Created by Leon Griffiths. Produced by Lloyd Shirley and George Taylor •

TIMEZONE

Producer: **Atlantis**
Memory required: **48K**
Retail price: **£1.99**
Language: **machine code**
Author: **G Weight**

You wouldn't have to be too astute to notice a very close resemblance between this game and the BBC programme 'Doctor Who'. The theme is very simple, the player is cast as a Time Lord who is trying to find the bits and pieces nicked from his Tardis by galactic vandals. The Tardis has now taken on the shape of a cassette. Rather than actually getting out of the machine and doing all of the running about and zapping of aliens personally the good Doctor has a robot equipped with a laser to do the graft, and it so happens that the robot resembles good old K9.

Before you start the game you will be asked to select a level of difficulty, all this really means is the harder the level the fewer laser shots you have, so you could find your dog running around the maze without any means of defence. The game is played across a matrix of eight zones. The first zone has nine rooms being a 3 x 3 grid and each following zone has a grid of rooms that is larger by a factor of 1 x 1. Each zone introduces a different monster but despite their different appearances they all behave in a similar way. All of the rooms are exactly the same size, they each have the doors in the centre of the appropriate wall. Every room has a monster except for the room you landed in.

The task is simple, scour the zone fending off the monsters until you discover the required part (which is indicated in a panel on screen), then make your way back to the Tardis ready to fly to the next zone.

The game is simple to play, the main complication being that the dog can only fire his laser if he is facing left or right which means you will have some tricky manouvering to do if you enter a room from above or below. Scoring is shown on a panel on the screen which also gives the hi-score, location, timezone, a picture of the object to be collected and an indication of the remaining lives.

CRITICISM

● *'Timezone* turns out to be a very pleasant game to play although it will lose its appeal very soon because it is fairly easy to master. On the other hand I enjoyed playing it mostly because I did manage to master it fairly quickly, ultimate victory could not be far away. For the asking price I would have thought it was a good buy, but it is not likley to provide hours of endless fun for the experienced games player.

● *'This game has something about it, maybe it's the robot Retriever that closely resembles K9 from Doctor Who, or maybe it's the software time machine in the shape of an audio cassette. Your task is pretty simple, just to collect the parts indicated and return to your time machine (one wonders how it operates with all these parts dropped off it)? Controlling your mechanical dog is quite a job because he whizzes about at such high speed, obviously he isn't fed on PAL. I found the game playable at first but it soon became repetetive, leaping in and out of the time machine, collecting a part and shooting the alien in every room, so I don't think this game will have any real lasting appeal and I became bored with it quite quickly.'*

● *'Timezone* isn't bad for a few minutes play, but you certainly wouldn't stay up all night playing it. In the end it is a bit too simplistic in objectives to really last, but probably good for younger children, especially at the price.'

COMMENTS

Control keys: Z/X left/right, K/M up/down, SYM SHIFT to fire
Joystick: Kempston
Keyboard play: responsive and laid out well
Use of colour: good within the limits of the graphics
Graphics: basic looking, though large, clear and sharp
Sound: very little
Skill levels: 5
Lives: 4
Screens: lots, but really there is very little difference between them
General rating: not bad for the price, amusing at first, but not very addictive.

Use of computer	69%
Graphics	60%
Playability	70%
Getting started	65%
Addictive qualities	30%
Value for money	50%
Overall	**47%**

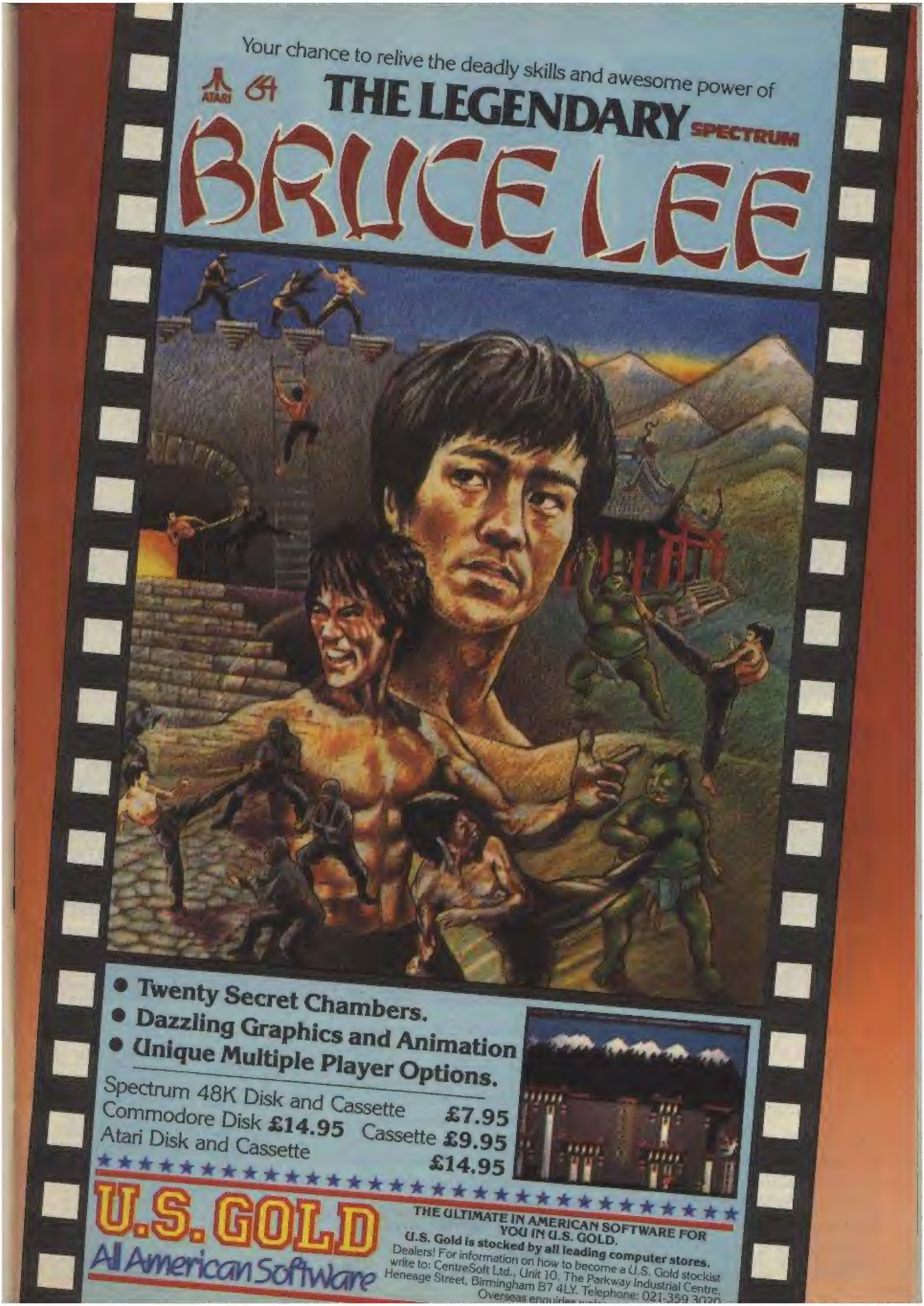
HOW THE RATINGS WORK

IMPORTANT CHANGE!!!

After more than a year of maintaining the CRASH rating system, we have made one important alteration. The **OVERALL** rating is **no longer calculated as a strict average of the previous 6 ratings.** Now each reviewer is independently allowed to judge the Overall worth of a game as a **separate rating**. We hope this will help overcome some of the inconsistencies which readers have noted in the past.

OVERALL PERCENTAGE is now a separate and distinct rating. ALL ratings are an average of three reviewers' opinions.

Under 30% — a waste of time
31-40% — generally poor but may appeal to some
41-50% — below average to average
51-55% — reasonable average if game type enjoyed
56-60% — above average to good
61-70% — good on most counts, generally recommended
71-80% — very good, recommended
81-89% — excellent
Above 90% — a CRASH Smash, words fail. . . .



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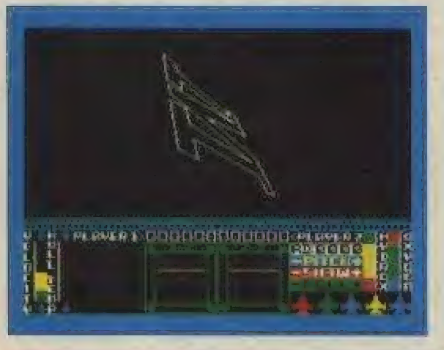
243 time states

Constant challenge



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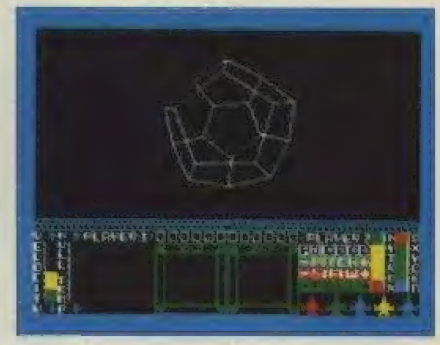
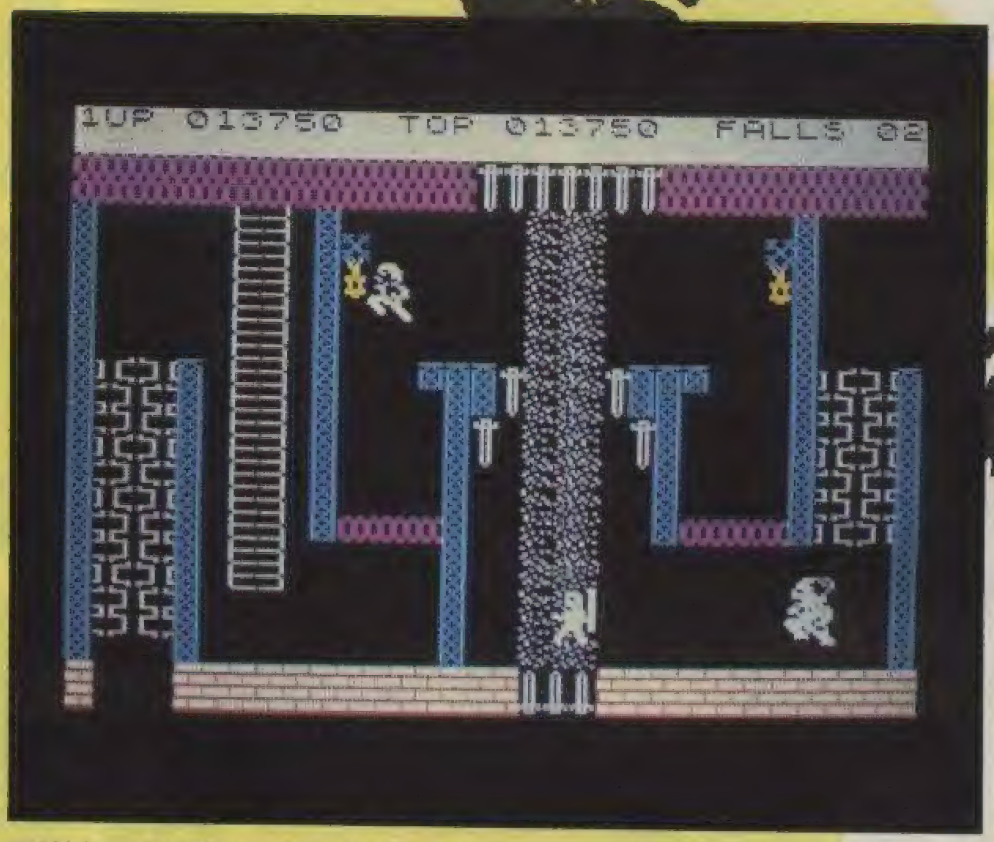


STARION

from Melbourne House

B·R·U·C·E L·E·E



BRUCE LEE

Producer: US Gold
Memory Required: **48K**
Retail price: **£7.95**
Author: **Ron Fortier and Kelly Day**

Ah so! Another platform game but this time based on the antics of the worldly hero of the east, Bruce Lee. Bruce has returned to the land of his forefathers to destroy a wicked wizard, should he succeed he will be rewarded with treasure beyond the capacity of his knap-sack which seems a bit of a shame.

Bruce's first task will be to find his way into the underground chamber by discovering the secret entrance. I won't be giving much away when I tell you that this can be found in the floor of the middle entrance hall but it will not open until Bruce has collected all of the lanterns from all three rooms, that's just to get into the underworld where the real work starts. As Bruce makes his way across the other screens he will face many bizarre dangers which include electric charges that shoot across the gaps between platforms, or the awesome exploding t'sing-lin (bushes) that appear from nowhere.

The most persistent and annoying of Bruce's problems go by the name of Green Yamo and the Ninja. These two characters devote themselves to Bruce's downfall. No matter where he is in the game he will always be persued by these two. For Bruce to be successful the player must guide him through the fights as well as the maze. By giving the appropriate commands Bruce can be made to duck, thump or kick — his flying kick is the most devastating. The other characters have the same ability except they are unable to duck, Hard luck Yamo. Bruce will survive three blows before he loses a life his, opponents will lose consciousness after two or three blows which gives Bruce a brief respite to gather the lanterns and be on his way to find the button and kill the wizard.

Points are awarded for collecting lanterns and laying out any of the opponents, 2000 points are to be had simply for entering a new room. With every 30,000 points a new life is given free. The total points scored for each player are shown at the top of the screen together with the current high score and the number of falls remaining before the game is over.

One rather useful feature of *Bruce Lee* is that the game allows allows the player to compete against either the computer or other players. Apart from the first option of playing against the computer a second option allows an opponent to assume the role of Yamo. Alternativly a third option allows two players to take turns in being Bruce, against the computer or with a third opponent as Yamo.

CRITICISM

●*'Bruce Lee* is one of the best action packed animated games on the market. The graphics are very detailed, lively and good looking they add a bit of zest to the game. What makes this game different is that you play a key character actually fighting against your enemies who are ace Kung Fu artists. The way that Bruce punches, kicks and ducks is exceptionally good and terrific fun simply to knock the stuffing out of your opponent. One of the strange things about this game is that when you leap he looks like a trained ballet dancer. As the game progresses it's get considerably more difficult. I must say that I found this game terrific fun, US Gold have really got the ingredients right this time.

●*'There's something about this game that makes me come back to it for more, in fact it's one of the few games that I have ever bothered to complete and the novelty still hasn't worn off. I think that* Bruce Less *must be one of the most original games I've seen. It has well drawn and animated graphics which make up for the poor sound. I loved the way that you actually make physical contact with your enemy (eg a punch on the nose or a kick in the ribs) instead of just zapping with a photon lazer phaser, the game gets a certain feel to it (I know, I'm a sadist). Another nice touch is the way the two opponents get into a fight if they get in each other's ways. I really enjoyed playing* Bruce Lee *and although it was easy to complete I will keep playing it just because I like beating up the nasties.*

●'Although *Bruce Lee* does not have the complexity or size of *Jet Set Willy* you are constantly waging a battle with the Green Yamo and the nasty Ninjas. Fighting is achieved in typical oriental style with several movement options, kick, chop, jump or duck. Initially this took a little getting used to. As you battle

deeper into the palace you encounter other dangers and hazards which are more typical of a platform game, these include electric charges, exploding plants and daggers. The sound and graphics are good, the game itself is very good and great fun. It's one of the most addictive I have played recently.

COMMENTS

Control keys: O/P left/right, Q/A up/down, Z-M chop or kick
Joystick: Kempston, Protek or Sinclair 2
Keyboard play: well positioned and responsive
Use of colour: very good
Graphics: excellent
Sound: nice tune but mainly spot effects
Skill levels: 1
Lives: 5-10 depending on number of players
Screens: quite a lot!
General rating: excellent fun packed game.

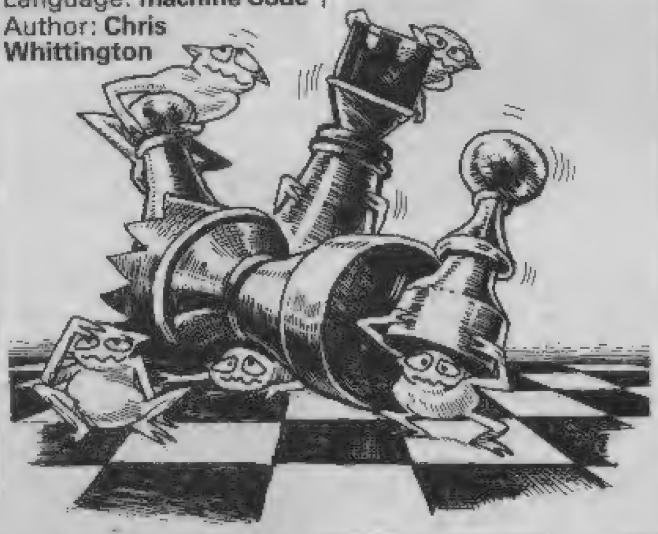
Use of computer:	85%
Graphics	90%
Playability	89%
Getting started	80%
Addictive qualities	92%
Value for money	85%
Overall	91%

SUPER-CHESS 3.5

Producer: Deep Thought/ CP Software
Memory required: **48k**
Retail price: **£9.95**
Language: **machine Code**
Author: **Chris Whittington**

Jeremy Spencer considers his endgame

I was surprised to find that we hadn't reviewed that many chess games in CRASH, I had formed the opinion that the world was awash with them and they simply were not good enough to find their way into these hallowed pages. This one is. *Superchess 3.5* claims to be 100 times faster and 1500 times more intelligent than any other program. With my chess playing ability being what it is I decided to ask in Syd, our in-house chess player. More from Syd later.



A lot of chess programs must surely be sold to people who either cannot play or are weak players as well as those who are brilliant; chess programs offer an important function as tutors, they don't laugh when you make a stupid move (they simply slaughter you) and they will quickly tell you if you attempt an illegal move. A program that can suggest moves is even more useful.

What does *Superchess 3.5* offer? Well there are seven basic options, the first being to set up a new game. Having done that you can request that the computer will limit its 'think time' to your average, or you could simply set the amount of time you will allow it — effectively a selection of skill levels. This option lets you set up the board to solve chess problems.

Option 2 allows the board play to be analysed, but should you be in the middle of a game you could use this option to reset the game by moving pieces around in answer to the prompts. If the game isn't going too well for you, now's your chance to turn the tables a little. Option 3

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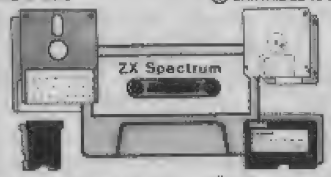

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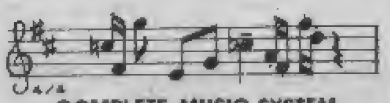

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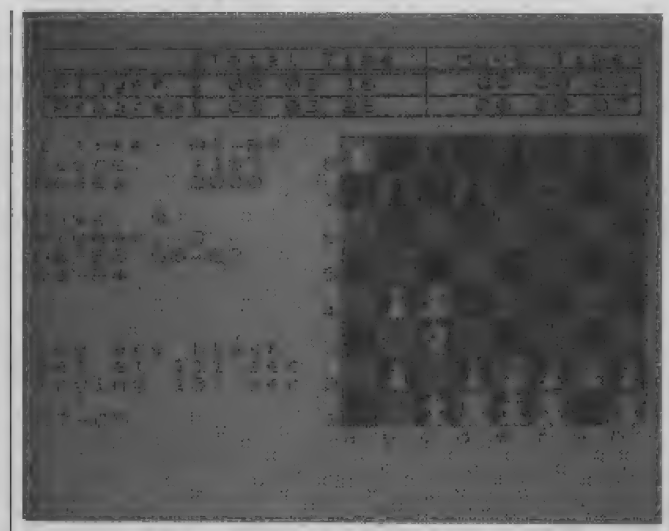


simply allows the user to change the playing colours.

If a player is stuck for ideas then option 4 can be used either to make the computer play the player's move or to suggest a move. Option 4 can also display a review of the moves made to date. Option 5 allows the program and the current game to be saved to microdrive.

The screen displays a great deal of information. At the top there is a clock showing each player's total time and move time. On the left the computer shows its favoured move but as it continues to think it may change its mind. The score gives some idea who is ahead and below that 'nodes' show how many lines of possible moves the program has analysed so far. More often than not this figure is in the hundreds of thousands. The computer also shows the moves it is predicting it will make which gives the player a very good idea of the program's strategy, and using that information the player ought to be able to utterly frustrate the machine.

CRITICISM

● 'This is without doubt one of the best implementations of chess that I have come across. Given a fair time setting it will play a very strong game but more importantly the whole program seems geared to help the novice. The information given, together with the facilities to suggest moves for the player, make this program a superb tutor. The program is menu driven and very well error checked, which makes setting up the board a delight. The graphics are very well done so the board layout is clear and intelligible. My own chess playing is very weak but I shall be using *Superchess 3.5* to improve my play. See you in Moscow.'

● *Syd's game started very well, he had* Superchess *in check after only 7 moves but from there, I'm afraid to say, that it was all downhill. Syd was reduced to adopting a defensive posture fairly early on in the game, it was apparent that* Superchess *was making big plans and that Syd's success was due, in part, to being able to muck those plans up in the short term. The game lasted for 1 hour and 32 minutes and in that time 56 moves had been made. Syd was left with a King, Knight and a Pawn, he was reduced to making childish moves around the board in a vain attempt to escape the inevitable. To be fair to Syd though,* Superchess *only claimed to be up 104 points, the capture of a Queen is worth 144 points so Syd had pretty well held his own. To sum up, Syd's attempts at a quick kill damaged the* Superchess 3.5 *strategy but towards the middle game the persistence of the strategy was paying off. I should point out that* Superchess *was only allowed the same time as Syd to make its moves, that must have cramped its style. (Syd is a ZX81 playing Mikro-Gen chess at level 2)*

COMMENTS

Control keys: as requested
Joystick: n/a
Keyboard play: very easy
Use of colour: selectable
Graphics: very neat
Sound: spot only
Skill levels: varies according to time setting
Lives: n/a
Screen: n/a
General rating: a superb implementation, well thought out and easy to use. A must for those that want to play chess with their Spectrum.

Use of computer	85%
Graphics	80%
Playability	80%
Getting started	75%
Addictive qualities	85%
Value for money	76%
Overall	85%

PETE N' BARRY

Producer: Impact
Memory Required: **48K**
Retail price: **£6.90**
Language: **machine code**

For the older joystick riders among you the name Impact may ring a bell or two, CRASH technical supremo Franco Frey claims he used to play Impact games when he was young — they must have been written for Babbage's Difference Engine. This is a new company and *Pete N' Barry* is their first program. The object of the game is to rescue a journalist from an asylum (I knew someone would write a game about us sooner or later). The player is cast in the role of PC Plod, who must enter the maze of rooms in order to find the bits of the doll. The doll? Ah well you will need the doll, complete, to exchange for the reporter, you will also need to find the video cassette.

The five parts of the doll will be spread around the numerous rooms within the institution but within each room you will find thingies contact with which will cause the policeman to lose 'bottle' (or energy). The energy can be replenished if you come across either a riot helmet or a Doc Martin boot. Your only defence against the nasties is to try and keep them off you by repeatedly hitting them with your truncheon, for this you will score points. The collected parts of the doll are shown within a frame at the side of the screen, should you manage to find the cassette then you will be able to proceed through a room to the dungeon, but enter that room without the cassette and you will die, sorry but that's the way it is. In the dungeon you will have to succeed in the 'final confrontation' before you can leave with the reporter.

CRITICISM

● 'Please allow me to congratulate Impact on the production of this game. The graphics are very nice, the birds eye view of each room while not new is effective and the game is hard to play, it's a shame the game itself is so uninteresting. I hope that the use of nasty bloodthirsty graphics aren't meant to stimulate sales but what other purpose can they serve? Their entertainment value is negligable. The market has moved on. Impact seems to have the ability to produce something a little special so if you don't mind I'll take a rain check on this one and wait for something better.

● *'It's nice to see a new software house emerging when a lot are giving up or going bust. Being the first game from Impact Software I expected it to be pretty good, original and playable if only because these qualities are more essential in a new, untried company to enable them to get established. First glance at this game proved it to be not unlike* Atic Atac *in looks at least, although not as visually impressive. On playing the game nothing much struck me — the graphics never varied although the nasties vary throughout the game. I soon became very bored with this game, and when I say soon I mean like after five minutes. There just didn't seem to be any content. For £6.90 it's terrible value for money and I've seen far better games in the budget range.'*

● 'The Ultimate style overhead 3D promises an interesting game but although the rooms are well designed graphically the actual moving characters are

flickery and unsteady, and you soon realise that there isn't a lot to playing the game either. It's also rather sad that programmers feel the need to keep on copying older ideas, like when you lose your last life and a *Jet Set Willy* tune plays as a long arm comes down to pull off your head — well it's a bit different from the squashing foot, but similar in idea. *Pete 'n' Barry* (where does the title come in?) is above average by a margin.'

COMMENTS

Control keys: CAPS/Z left/right, L/SYM SHIFT up/down, P/ENTER pick up/fire
Joystick: Kempston only
Keyboard play: well organised and responsive
Use of colour: good
Graphics: good looking but slow
Sound: none
Skill levels: 1
Lives: 3
Screen: 100 rooms
General rating: very nice graphics but the game is a bit old hat

Use of computer	65%
Graphics	73%
Playability	55%
Getting started	53%
Addictive qualities	45%
Value for money	55%
Overall	58%

FLIGHT PATH

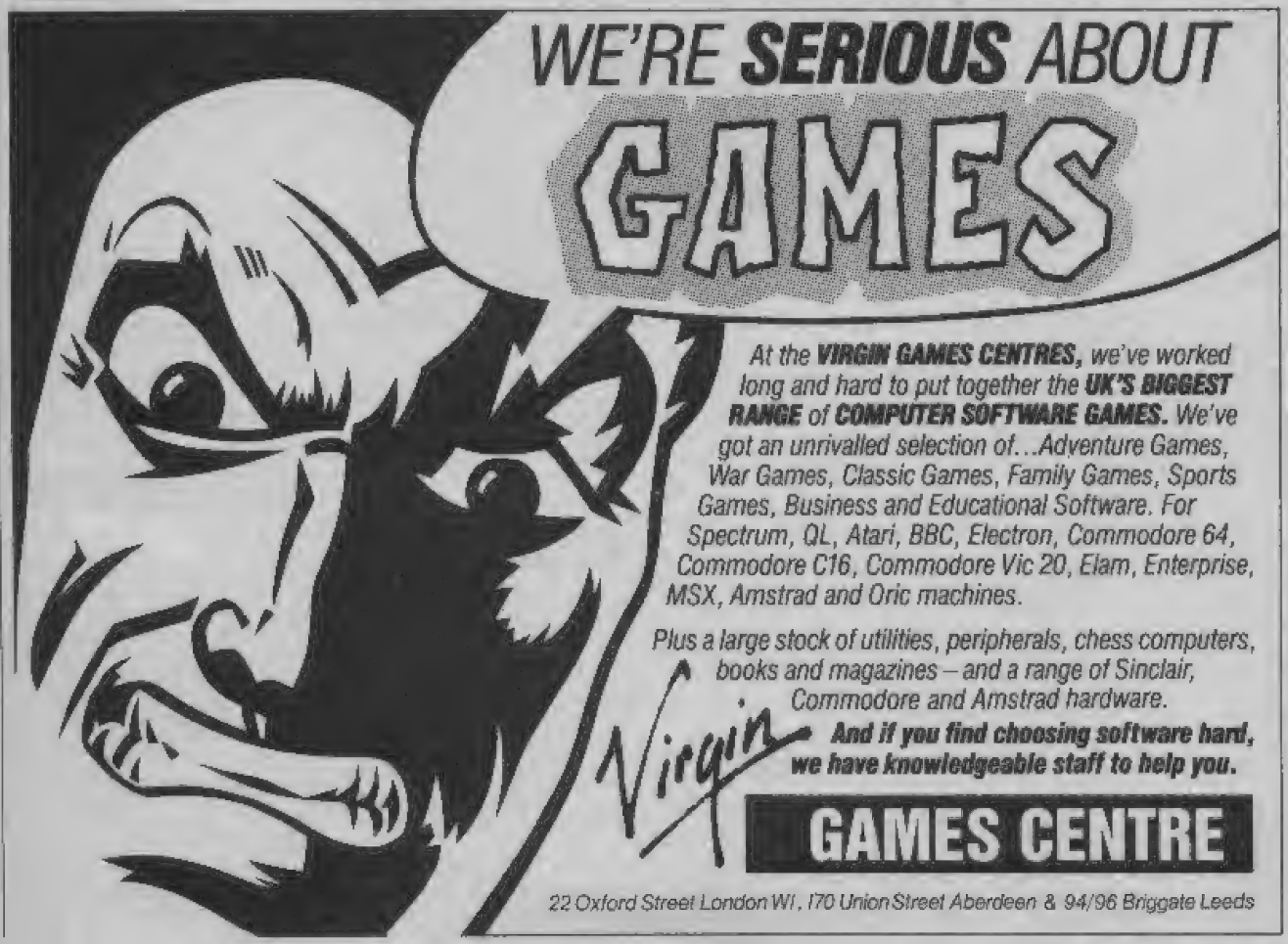
Producer: Anirog
Memory required: **48K**
Retail price: **£5.95**
Language: **machine code**
Author: **Stefan Walker**

This is Anirog's program to put you in command of what appears to be a Boeing 737. *Flight Path* offers the player 6 levels of difficulty. In the lowest level, called 'First solo', the pilot is required to take off and clear mountains at a height of 5000 feet and then land some 3 miles further on. For the hardest level, 'Test pilot', the mountains reach 9,200 feet. At this level the landing strip will be at a different location each time and it will suffer from severe cross winds — mind you, you will be lucky if you reach it because your engines are going to catch fire.

The cockpit display is straight forward. The pilot has a perspective view of the runway and of the mountains when they appear. The instruments include the normal array of dials and needles including status indicators for the undercarriage, flaps and fire extinguishers. Should the pilot survive then a score will be awarded which will be higher if the player has managed to complete the take off/landing sequence quickly — that means the faster that you fly the more points you will score, if you land in one piece, of course.

CRITICISM

● 'I really can't find it in myself to get excited about flight simulators any more, especially when they are so run of the mill. I noticed that this program was also written for the Commodore range of machines and the Amstrad. I assume that this is a conversion from those mach-



ines, because they all have inbuilt joystick options so the instructions supplied would perhaps make sense, but for the Spectrum the instructions are rubbish. The text refers to '. . . pulling the joystick back' — but nowhere is it explained what type of joystick can be used or even what the equivalent keystroke would be. The instructions tell me that I have to reach a speed of at least 180 knots, but I simply couldn't get the plane to accelerate fast enough and as a result I always went off the runway. The display is both clear and easy to understand though the labels tend to be obtrusive. This just isn't very exciting.'

● *'It's very hard to like a game that makes getting into it so damned difficult. The accompanying instructions are unusually brief for a flight simulation, but they are wholly inadequate for a Spectrum owner, since they have been written for CBM, MSX and Amstrad. There is a sort of conversion bit on a back flap, but its mysteries are well maintained. It says the cursor keys may be used, but 'down' doesn't appear to do much. Onto the display — it's very hard to get off the runway at all, and you keep 'crashing', being told you are 'off runway'. But the viewscreen display shows the runway safely ahead of you all the while this appalling disaster is taking place. I have to be honest and say that I didn't get very far into the air, and couldn't be bothered to go any further with this program. It does have a great tune at the start however — now I know why the captain plays soothing muzak on board, while you await take off.'*

● 'Rubbish! An insult to Spectrum software. How dare a company put product out without any instructions whatsoever on how to control the game (aeroplane in this case)? Where are the instructions given with this game? It's not as if you can find out by trial and error, because the keys react so slowly that you have to press them for at least five seconds to get any noticeable response. Is this game written in BASIC, or an extended language — 'slower BASIC'? The display doesn't actually show much and looks graphically displeasing. After trying for an hour I never even managed to get an inch off the ground. Did I read the price correctly? Is it £5.95 or 59.5 pence, because that's about as much as it's worth to me — the price of a blank cassette.'

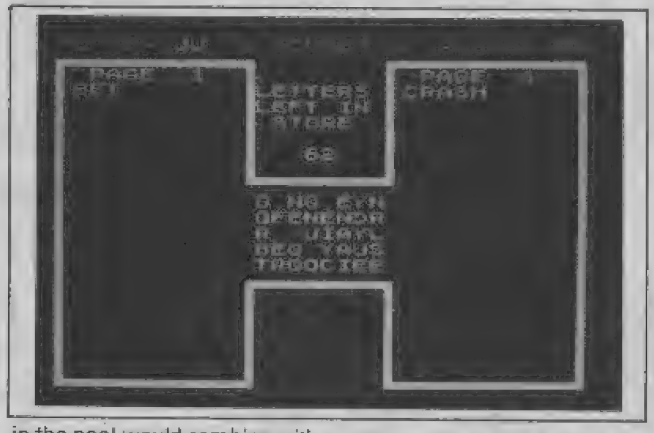
COMMENTS

Control keys: 5/8 left/right, accelerate/brake 0/SPACE (we think)
Joystick: no information supplied
Keyboard play: very unresponsive
Use of colour: not good
Graphics: mediocre
Sound: nice tune
Skill levels: 6
Lives: 1
Screens: 1
General rating: this may work on the other machines but the Spectrum conversion seems to be a botch up.

Use of computer	10%
Graphics	15%
Playability	5%
Getting started	1%
Addictive qualities	0%
Value for money	2%
Overall	4%

SNAFFLE

Producer: Longman Software
Memory required: **48K**
Retail price:
Author: **Trevor Green**



At first sight *Snaffle* begs to be compared with 'Scrabble' so I shall. Both games use a store of letters from which the players draw a selection, the object being to form a word with the letters so drawn. With 'Scrabble' each player starts with seven letters and refills after a round of play but in the case of *Snaffle* the players can pick from a common pool of letters that is added to one letter at a time. When any one of the players spots a potential word he keys in his 'pick key' to tell the program that he is ready to make a word.

The main feature that *Snaffle* offers is the ability to take another player's word — I know that because that's what snaffle means (though not necessarily a word of course). That's not really so different from 'Scrabble' because you could always add your letters to another player's word and get his score as well but with *Snaffle* life is a little easier in so far that a player who uses another player's word really uses the letters of that word mixed up in any order. For example if a one player has a word such as 'cat' and the letters 'T,O,N,E,M,P,L,' are in the pool, a lesser player may decide to draw the letters from the pool to make the word 'temple' but a really mean player would immediately notice that the letters in the pool would combine with his opponent's 'cat' to make . . . . 'contemplate'. One word of warning to the meanies among you, the rules state that a player can only snaffle another player's word if the new word has a different base, in other words it's not done simply to append a chaps word with -s or -ed.

The tasks the computer has to perform are to shuffle the letters to be presented and display them. It will judge an entered word in a much as it checks to see if the letters used are in either the pool or in another player's corner. When it has found the letters it will transfer them from the pool (and/or another players corner) and add them to the appropriate corner. The machine then gives the other players an opportunity to allow or reject a word. On the scoring side marks are awarded according to the length of the word formed, bonus points are given if a word is made by snaffling another player's word. If one person enters a word that the other players decide is not kosher then the offender will lose points and this is also the case should an over-eager player enter his 'pick' code and then realise that he can't make a word after all.

CRITICISM

● 'Certainly *Snaffle* can be considered as a good wholesome family game, there still aren't thousands of those about for computers. 'Scrabble' has certainly marked out a patch as one of the most popular board games so I can see no reason why *Snaffle* shouldn't find equivalent appeal. The games are very similar except that the facility to use another player's words, mean as it is, does add that little something. My main concern is that I found the game very easy to cheat at, especially if you are playing against non-computer experts, like the dog. I kept rejecting Poddy's words and he finished with a score of -10, it all happened so fast he hadn't a clue where his words where going. Seriously though, the problem with using the system adopted of allowing the players to pull letters from a common pool, is that a player is forced to make short three letter words before the next player does. Good solid words can only be formed by snaffling other players' words, with my family that would end in tears. I realise that a spelling checker would be out of the question on the Spectrum but it was a pity that the computer couldn't be left to judge the legitimacy of the words. The input system and the graphics worked well but there's nothing flash or clever about either.

COMMENTS

Control keys: as allocated to players
Keyboard play: responsive
Use of colour: minimal
Graphics: adequate
Sound: not lavish but useful
Skill levels: 1
General rating: a similar game to 'Scrabble' that has been transferred well to the computer.

Use of computer:	65%
Graphics	50%
Playability	75%
Getting started	80%
Addictive qualities	85%
Value for money	85%
Overall	75%

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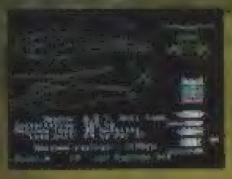

COMMODORE 64

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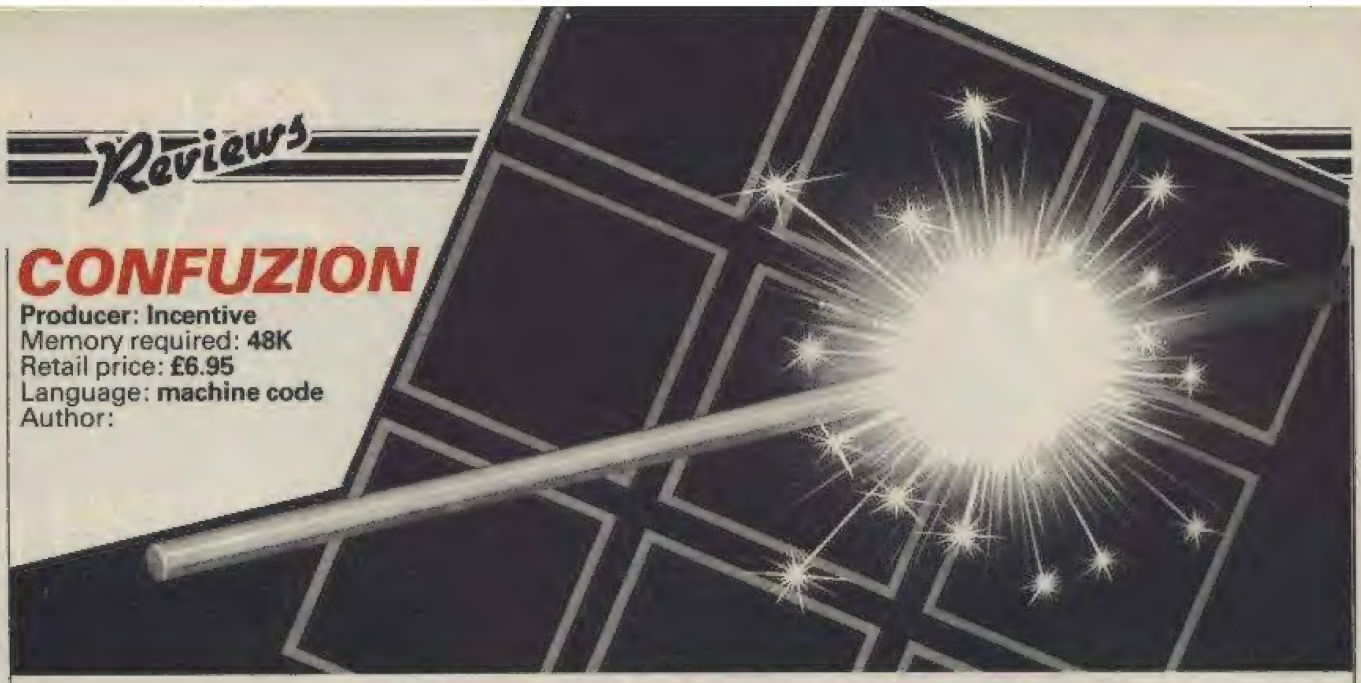
CONFUZION

Producer: Incentive
Memory required: **48K**
Retail price: **£6.95**
Language: **machine code**
Author:



A year and a half ago Incentive brought out one of the most original of maze games called *Splat!*. This new one is also pretty original in concept, although there are one or two near relations as precedents, like the arcade game with trains, Microsphere's *Train Game* and, less in style but more in concept, Activision's *Zenji*.

The story behind the game is that having located the Confuzion bomb factory, your mission is to destroy every bomb in the place. These bombs lie along the edge of the 'assembly room', and in the centre there are moveable pallets lying around covered in bits of fuze wire, the bombs are destroyed by guiding a spark along the fuze wire until it reaches a bomb. Like those old fashioned plastic hand games where you slid the squares about by using the one free space, in *Confuzion* you must move the pallets by sliding them into the one or two free spaces available. In doing this the route of the fuze wire is drastically altered. The trick is to move them in such a way that eventually the spark can reach all the bombs one after another. To make life more difficult on each screen you have a time limit imposed by the length of time the spark will burn. On top of that there is the fact that if you let the spark run into a dead end or to the edge of the assembly room floor, it will lose some of its energy, thus shortening the burn time. But this isn't all — the sprinkler system also releases droplets of water which will run along the bits of fuze wire and should spark and drop meet, you will just get a damp squib.

The game has 64 levels — 8 sections on 8 floors, and the player is allowed access to any of the first six sections. After every eighth level there is a bonus screen and after every four levels completed you are given a bonus spark.

CRITICISM

● 'I love puzzling games, in fact I'd go as far as to say that I thrive on them. But this one is, shall I say it, confusing. Presumably this is what it's meant to be anyway. On the early levels everything seems pretty straightforward, but as you progress it rapidly becomes extremely difficult and frustrating, confusing to play. By the time you reach the stupid figures level of play, like level 4, everything comes seemingly against you and impossible, but then again, most people like something to go for — I do. Whatever happens on level 64, I just dare not think about! A game for the arcade/intellectual — a thoughtful and playable game.'

● 'Confuzion *is the sort of game which gives frustration a good name. There's something very compelling about it — it looks so simple, yet turns out to be so difficult that it just gets to you after a short while — you get very mad with yourself. Graphically it looks attractive, although there isn't anything exceptionally exciting about them, but they are brightly coloured and move extremely fast — the revolving bombs are very neat. I suspect that people are either going to love or hate* Confuzion, *but you certainly won't be indifferent to it, and if you do like this sort of game then I think you'll find it exceptionally addictive.'*

● 'This has something in common with Activision's *Zenji* in as much as you have to 'feel' your way to the solution. The spark moves about fast enough to keep you constantly on the hop and stop you from thinking. I could understand some people not liking it, or finding it too difficult and not exciting enough to keep their interest, but for me this isn't the case. I think *Confuzion* will become a classic of its type — the puzzle/arcade game, and as such it is playable, though very hard, a certainly addictive.'

COMMENTS

Control keys: user definable, four directions needed
Joystick:
Keyboard play: responsive, directions may be reversed to suit player's orientation preference
Use of colour: very good
Graphics: although essentially simple, chunky, fast and smooth
Sound: above average
Skill levels: progressive difficulty
Lives: 6
Screens: 64
General rating: an unusual and original arcade/puzzle with plenty of difficulty levels and features suitable to multi-player use.

Use of computer	89%
Graphics	83%
Playability	85%
Getting started	86%
Addictive qualities	84%
Value for money	87%
Overall	86%

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GRAND NATIONAL

Producer: Elite
Memory required: **48K**
Retail price: **£6.95**
Language: **machine code**

Grand National follows hot on the heels of Elite's last effort *The Dukes of Hazard*. While there have been a few horse racing games on the market *Grand National* goes further by becoming more of a simulation — it lets you ride a horse round the most challenging course in the world, Aintree.

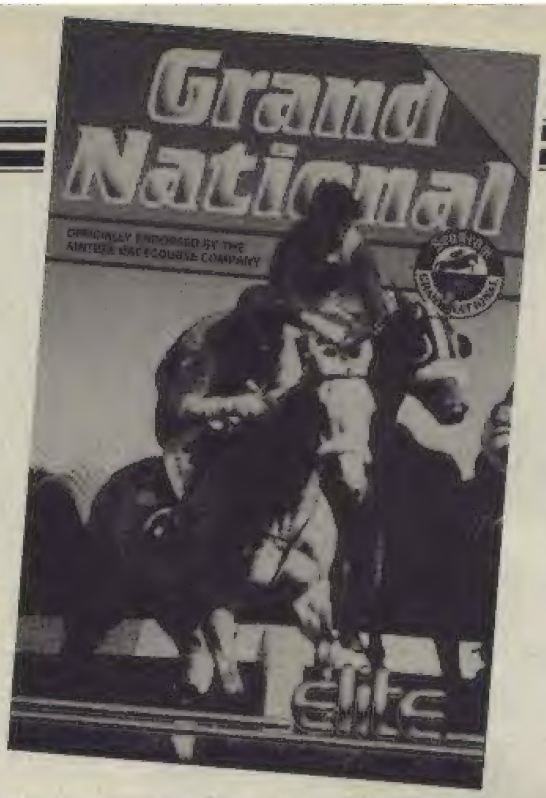
The first screen shows a list of the runners, their form and odds. Unless you opt not to bet, up to five horses may be selected from this list, unless of course they are shown as 'non-runners'. You are expected to assess a horse's chances by considering the 'going', the form and the odds. The punter starts with an initial purse of £1000 and winnings from gambling or racing will add to this but any losses will be deducted. After your bets have been placed the amounts are shown against the nag of your choice, less 10% betting tax of course — who said computer games aren't realistic?

While the first page is being displayed the player can decide whether to go for one race only or try for a racing career. The latter option makes for a much more involved game.

Before the race proper the player must exercise the same judgement in picking a mount as he would in choosing a horse to back. After the selection has been made the screen changes to show a view of the course. The main part of the screen is taken up with a bird's eye non-perspective view showing the part of the field occupied by your horse and its immediate neighbours. On the screen's top right is a profile shot of your mount, this view is very important as the jumping is one of the most difficult tasks that you will be expected to perform. In respect of these split screen graphics, *Grand National* resembles *Show Jump* from IMS and also the new *World Series Baseball* from Imagine. Your mount can be steered left and right and encouraged to go faster by using the whip key which must be applied 'decathlon' style.

Other information given would make a real jockey green with envy, for not only is there a map of the course complete with a tracking dot and fence indicator but the horse's energy and speed are given in bar graph form, one on each side of the screen. Even more information is provided at the base of the screen, the number of fallers, number of horses retired and total horses still running. You're even told the number of the leading horse and your own position in the field.

If you fall then the race is concluded immediately but the finishing positions are given in the race report. If you have ridden your race in an ungentlemanly manner, barging into other horses for example, you could face a steward's inquiry, this may only lead to a fine, but you could be banned which would do little for your career.



Watch out! The
Now in ne
ANF
NEW CYLON ATTACK

CRITICISM

● 'On the whole this game is a vast improvement on Elite's last release. The graphics are very good and the game, being more than just a betting game, offers more involvement. While on the subject of the graphics I think it fair to say that Elite found a good compromise, although you can only see a small section of the race at any one time you do get a good overall impression, any attempt to put more on the screen would have resulted in a loss of definition. I have a couple of small niggles, however. This game has no provision for each-way bets; the method adopted for increasing the horse's speed is a little difficult to come to terms with, all riders know that the whip is an aid whereas the game requires the player to use the whip continuously in order to maintain speed. Such indiscriminate use would have a real jockey banned for life. *Grand National* is a substantial improvement over the last efforts, one of the best to emerge from the Elite stable (sorry!). I would have thought this game was well worth considering.

● 'Grand National *is the first proper horse game that actually lets you control the horse rather than simply betting on them. The graphics are good and the colour is used well. Sound is very limited. When the game starts you have an option to bet on horses, but the actual race is the highlight of the game. It's a sort of decathlon type (don't get too worked up it results in a very raw horse.) The race part is very authentic, down to the steward's inquiry and resultant fines. Getting round the course is not easy A; because of the infamous jumps and B; because of the other horses in your way. There is also a tactical element to* Grand national, *which horse do you go for? a good all rounder or a fast finisher, plus you have got the energy bar to keep an eye on. This is definitely the best horse race game around and for once Elite have put a good game behind the graphics.*

● 'As usual Elite have produced smashing graphics but without much of a game. It has to be said that this is by the far the best horse racing type game. The graphics and animation are very realistic. The trouble with simulations are that you are placed in a real-time situation, and it seems to take ages to complete the course as you race round it. By the time you get to the home stretch, your hand is just dropping off from pressing the key to go faster. At least this isn't just a racing simulation — you can bet as well. I thought *Grand National* was quite easy to win, for instance I achieved first placing on the first time I played the game. Although a different idea, I can't really see the point of the game, and I can't see it selling much apart to horse and racing fans. Still, the best horse racing simulation for the Spectrum.'

COMMENTS

Control keys: Z/X left/right, P to jump, and O to crack whip
Joystick: none
Keyboard play: responsive but very tiring
Use of colour: suitably green, above average
Graphics: nice, smooth scrolling action, good horse animation
Sound: great tune that goes on a bit, can't interrupt it, no other sound
Skill levels: 2
Lives: 1
Screens: scrolling action
General rating: best horse racing simulation for Spectrum, mixed opinions on playability and addictive qualities.

Use of computer	60%
Graphics	85%
Playability	62%
Getting started	78%
Addictive qualities	72%
Value for money	70%
Overall	**79%**

Cylons are here!
ve-jangling 3D.

Alien Spaceships (O.K, so what's new!) A'n'F have updated Cylon Attack (a very sought after game) so popular that A'n'F had great difficulties to improve the game, but they have done it. Cylon Attack is now in isometric perspective. Imagine playing new Cylon Attack in isometric perspective (3D). **£5.75**

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A CRASH Smash

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World Series BASE-BALL

Producer: Imagine
Memory required: **48K**
Retail price: **£6.95**
Language: **machine code**
Authors: **Ian Morrison and Robin Muir**

After the spate of American Football simulations, comes the other great American sport — baseball. This program is also interesting in view of the fact that it is the first from Imagine as now managed by Ocean. As the inlay states, baseball is similar to European 'Rounders' — up to a point. Each team either fields or bats — a half 'innings' lasts as long as the batting (or striking) team keep three men in. The ball is thrown by the Pitcher at the Striker and it must remain within the triangle extending from the 'home base' where the striker waits. A striker is 'out' if he misses three successive strikes, is caught by a fielder, or run out. The pitch is marked with four bases at the corners of a square, and after a successful strike, the object is to make the striker run from home base to the next, or as many as possible before the fielders return the ball to a base or the pitcher. A striker can be run out if the ball is returned to a base and held by a fielder with his foot on that base, or if the runner is 'tagged' by a fielder holding the ball between bases.

So much for the game idea.

World Series Baseball allows two players to compete against each other simultaneously using either the keyboard or suitable twin joystick interfaces, or one player versus the computer. The screen display shows the squared off pitch surrounded by the grandstands on all sides. Centred at the rear between two grandstands is a large display screen on which comes up most of the information relating to the game. This is also used, however, to display a large, side-on, close up of the pitcher throwing the ball, its travel, and eventually the striker hitting it. This gives the player(s) an opportunity to watch both the long view action and the close up for fine tuning. Control of both pitching and striking is achieved through the keys or joystick, and fielding control is handed automatically over to the fielder nearest where the ball will land. On the long view, the ball's shadow acts as a guide to catching shots.

CRITICISM

● 'The graphics of this action simulation are excellent, every bit as good as Ocean's *Match Day*, and the screen layout really gives the atmosphere of a big game. There is tremendous attention to detail, right down to the between match prancing cheer leaders which can be seen in ranks on the field, while the close up screen shows them in animated detail. Skill is required in both pitching and striking, to judge the position of the ball and the strength and angle of the shot. Controlling your fielders is something to leave out for the first few plays until you get the hang of how the game goes, and then, just when you thought you had it all pat, another strategic area of play is opened up to you. I like the fact that this is one of those rare games that can be played by two people simultaneously. The real joy of this game is the elegant way in which the top screen and main playing area interact with each other. I think *Baseball* is going to prove immensely popular.'

● 'Baseball is a good simulation of the real game. The split screen graphics work well. Playing the game is a little difficult at first and early attempts at strategic fielding ended in sheer chaos. Rounders, oops sorry, Baseball is well done, but I don't really need to see ads for local stores between games. Mind you, this could reduce the price a little — there's food for thought. The addictive qualities tend to build up slowly; give it a quick play and you could walk away. Play it for longer and you're hooked. It's nice to see the name of Imagine representing good games again.'

● 'I think the biggest question over the relaunching of Imagine is why do it at all? I'm sure a lot of people will be very wary of buying an Imagine game until they've had a good look at it. As to the game itself it is the best thing that has ever been released by Imagine. The graphics are good and there are no really serious attribute problems. If I had to liken this game to another sports simulation I would say that it's baseball's equivalent of football's excellent *Match Day*. Playability is high and the game is certainly addictive when you consider that you can play it against either friends or the computer. Sound is used surprisingly well for the Spectrum and colour is also used well because you can define the colour of your teams. Getting started on this game is relatively simple and none of the procedures for playing the game are awfully complex. This is a very good sports simulation and thankfully it lives up to the image that Imagine tried to portray for their games before they went bust. Overall an excellent game especially if you like sports simulations.'

COMMENTS

Control keys: both players may define their own keys (as long as no key is shared)
Joystick: almost any via UDK
Keyboard play: responsive
Use of colour: generally excellent, team colours may be altered
Graphics: the small 'on field' stick characters work well, but the larger 'close up' graphics are excellent
Sound: good tune and spot effects
Skill levels: depends on the players!
General rating: an excellent action sports simulation with some very good features. Addictivity and playability is high, but more so with two players — our rating reflects this aspect.

Use of computer	**91%**
Graphics	**92%**
Playability	**87%**
Getting started	**85%**
Addictive qualities	**89%**
Value for money	**85%**
Overall	**91%**

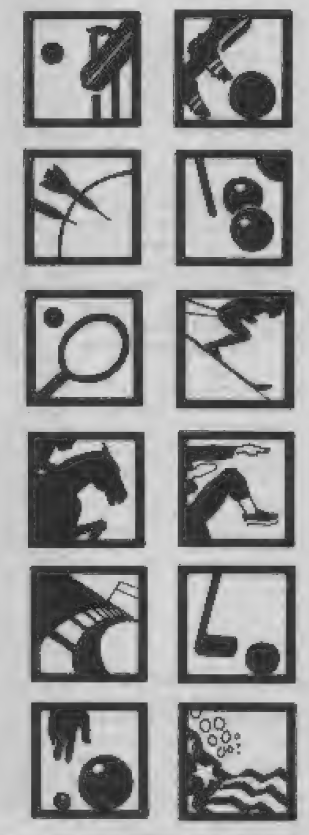
SPORTS SCENE

A Special CRASH Supplement which looks at the many Spectrum programs devoted to Sport in all its varieties, compiled by CHRIS PASSEY

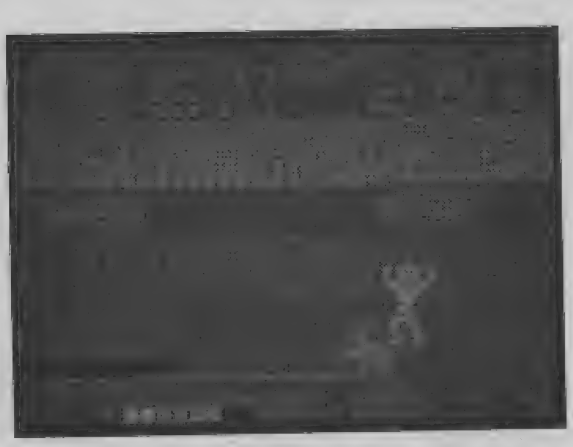
Just about the first ever video games to appear in pubs during the 70s were sports simulations — the most famous being Pong Tennis. Sports games have never lost their fascination and have continued to form a large part of the software output for home computers. Have they had their last gasp though? It seems not — just at a moment when the stream of programs appeared to have dried up, along have come a spate of exciting action-simulations to revive the genre. It seems an appropriate moment to take a look at all this sporting activity.

Over the last year many releases were directly influenced by the 84 Los Angeles Olympics, while others were more obviously traditional simulations of sports like football and car racing. Releases of arcade/pub favourites also proved popular, noticably Pool type games.

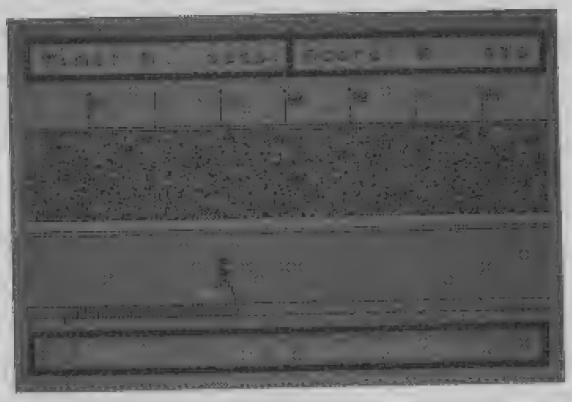
Many sports have been used as the base for games. Some had better results than others. Not all of the sports were fast action, there have been quite a few releases of golf, cricket and darts games. In total there are about sixteen different groups of sporting activities covered. This marathon (no pun intended) roundup briefly shows what is and was available. As well as an outline of the games, I have also commented on general and individual standards. The games ranged from some excellent simulations down to some fairly yuckky ones. Onwards. . . .



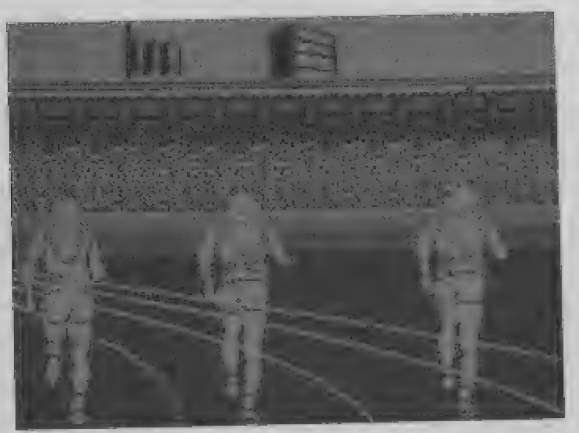
OLYMPIC/ATHLETIC



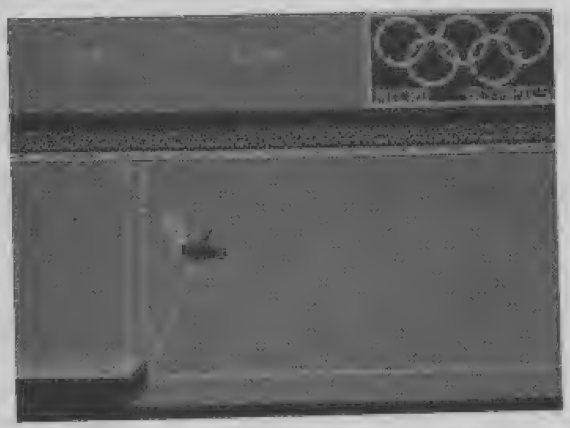
DALEY THOMPSON'S DECATHLON has proved the most popular of the 'Olympic' games based on the arcade original TRACK & FIELD. This is the game that has thrashed a thousand joysticks. Perhaps a drawback to the Spectrum version is that Daley runs all alone.



The lonely and unconvincing stick figure in OLYMPIC CHALLENGE is certainly no match for Daley Thompson. The game 'sports' a fair range of events, but the graphics do little for the feel and atmosphere, and player control is poor.



In RUN FOR GOLD, the mould is broken by using a 'road racer' type of perspective which allows the player to 'steer' the athlete. Again, excellent graphics add to the overall atmosphere.



Not the first, but certainly the first good version, MICRO OLYMPICS is also the first Spectrum program Database, publishers of the Micro User (BBC) magazine.

There are over half a dozen Olympic games available, the spate having been inspired by Los Angeles. Generally game play falls into two main categories. Firstly there is the arcade method of pressing two keys as quickly as possible (based on the arcade original *Track and Field*); secondly there is the less strenuous method of using up a fixed reserve of energy with more energy used as you increase speed etc. Neither type really allows much strategic skill to be employed, whatever the software houses may claim!

DALEY THOMPSON'S DECATHLON **(Ocean)** is probably the best known game of this type and it has proved hard to beat. It contains all of the decathlon events which include various running events plus throwing and jumping events. The graphics are excellent, even if Daley is white. Overall the control is responsive and the game highly addictive. My only criticism is that I wasn't given a pole for the pole vault on many occasions! This is one of a few bugs, none of which really spoil the playability.

OLYMPIC CHALLENGE **(Century City)** includes most of the events as available in *Daley's*. Ignore the cassette cover showing karate and gymnastics — they're not included. The graphics are basically of the stick man type and not very convincing. The events are varied and acceptable but there really isn't anything outstanding here.

SPORTS HERO **(Melbourne House)** has some very good graphics with an excellent style of running. But that is the problem, it is mostly running. The four events are the 100m, 110m hurdles plus long jump and pole vault. These are good, especially with three skill levels and Melbourne's usually high standard of graphics, but the let down is that there just isn't enough variation to keep the game interesting. Oddly, for some reason CRASH never got around to reviewing this game.

OLYMPICON **(Mitec)** is a fairly average offering which is not really very playable. The fact that it also has few events, five, severely limits the game's addictive qualities. With so many better ones available, I wouldn't worry over this one at all.

RUN FOR GOLD **(Hill MacGibbon)** is, as the name suggests, purely a running game. It differs from the other games as it is shown in 3D as if you were just running behind the athletes. The line drawn 3D runners are extremely well animated, almost life-like. The game offers several middle distance races, and you have to qualify to move up in the world. *Run for Gold* also differs in the respect that you have to steer your runner around the track, which oddly gives it the feeling you might get from a road racer game. A good program, fairly serious, for runners only.

ATHLETE **(Buffer Micro)** offers some reasonably animated graphics, with four running events plus the hammer throw — an odd combination. Again it's a shame that there aren't more events. The power reserve method is used here, more practical when using the keyboard, but not as much fun as thrashing a joystick. Generally this game is okay but not over addictive and definitely outclassed by some of the better offerings.

MICRO OLYMPICS **(Database)** is not only the first serious contender in this category but also one of the better offerings. It offers five running, three throwing and a couple of jumping events. The graphics are good although not quite in *Daley's* or *Sports Hero's* league. A key basher which shows an opponent on the screen controlled by the computer.

OLYMPICS **(CRL)** has got to have the widest range of events — as well as the usual it includes cycling, swimming, rowing and constantly breaks between events to rejoin a marathon. The format for all events is pretty similar and the graphics are small, unconvincing and of the block type. With this one you could train the dog to press ENTER every now and then while you go out for a run! It was a huge let down when it came out.

OLYMPIMANIA. **(Automata)** also entered Piman in the Olympics stakes in this five events-long potty arcade game. Definitely NOT a sports simulation! Quite silly but fun. **Avalon Hill** also entered *Stickman in the Olympics*, but this is below average and not at all addictive. That about winds up the track/field games, apart to mention the new release from **Martech**, *BRIAN JACKS SUPERSTAR*. This will probably be reviewed in the next issue, but briefly it contains eight events as you might see in a Transworld Superstars production on TV — Arm dips, Squat thrusts, Canoeing, Cycling, Football, Swimming, Archery and the 100 metres. It falls into the *Daley's* method of propelling your man along. Martech say it is 'one of the most exciting, addictive and challenging games you will ever have attempted'. My feeling is that it won't displace *Daley's*.

Not quite in the Olympics tradition, BRIAN JACKS SUPERSTAR is based on the TV series of mixed events. 'Decathlon' style player control is tiring, but the graphics hold up well.

FOOTBALL

Of the football games available there are both arcade and strategy/simulation types.

STAR SOCCER **(Watson)** was the first on the scene in the arcade stakes — it was also the first to leave it. This 16K game was similar to the old 'men on rods' style games of the 70s. The graphics were a bit limited, little squares in fact, but in its day the game was fun and, rarely, intended for two players simultaneously sharing the keyboard.

WORLD CUP **(Artic)** was second to hit the scene. This is a reasonably good game, with neat graphics. Play is okay but generally things are not up to the standards of similar games for other machines. It's a great 2-player game, with tunes and crowds creating a good atmosphere. Throw-ins etc are computer controlled.

MATCH DAY **(Ocean)**, the most recent release, is the definitive version of football for the Spectrum, containing convincing graphics and high playability. The game turns out to be very authentic in play with corners, dribbling, passing and throw-ins all controlled by the player(s). The depth of play is excellent and generally the game is attractive and fluent. It puts similar game for other machines to shame. Ocean seem pretty good on the sports front.

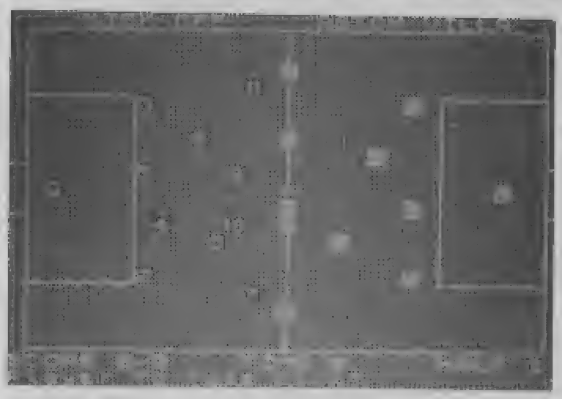
Football Simulations put you in the position of running a club/team. They tend to be mostly text-only (although some games do include 'action replay' highlights) and involve finances, gate money, team strategy, strengths, skills and pitch tactics. Generally the aim is to get to the top of the League without going financially bust in the process. Many of these games are written in BASIC.

FOOTBALL MANAGER **(Addictive Games)** is probably the best known game under this heading, and is also the first, dating back to the days of the ZX81 — it was upgraded when the Spectrum arrived. All of which makes this an old game now, but still a contender in the outer reaches of the Hotline Chart. Its features are typical of the genre and it includes animated game highlights. These are shown in very simple graphics. Still popular and enjoyable.

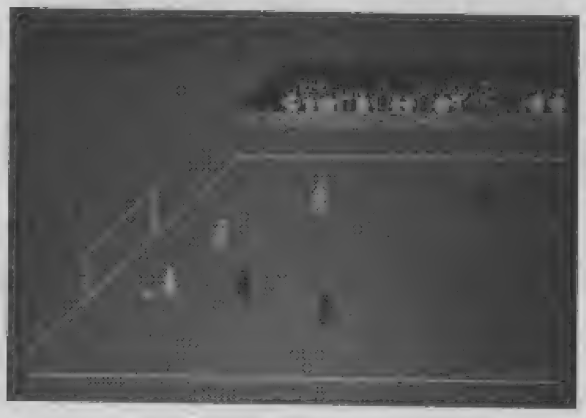
CHAMPIONS **(Peaksoft)** is another early game. It is quite similar to *Football Manager* but contains no graphic highlights. Rioting fans and the European Cup are its two main different features.

THE BOSS also by **Peaksoft** is another simulation of the text-only variety. In addition to the usual factors like expenses and injuries, there are few other features such as spying included. Basically *The Boss* has much less appeal than *Champions*, and the long wait for match results does little to help.

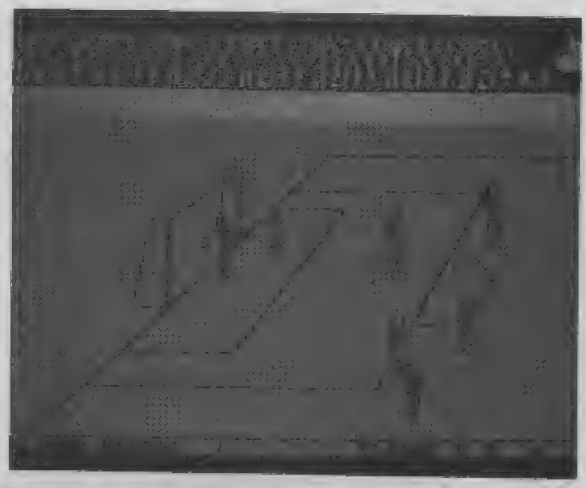
UNITED **(CCS)** is strategically a good game with plenty of factors and variables to play around with especially in the areas of team selection, buying and training. *United* even offers dirty play tactics to give your team the edge, with appropriate penalties if



Watson's STAR SOCCER was a brave attempt at interactive football before the programming skills permitted a really exciting game.

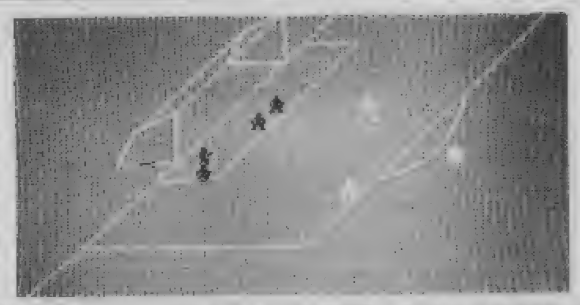


A year and a half later and Artic's WORLD CUP was beginning to look more like the real thing and play like it too. Automatic throws, corners etc, spoiled some of the playability however.



The present culmination is in Ocean's MATCH DAY, which is also a match for almost any other machine's version.

FOOTBALL

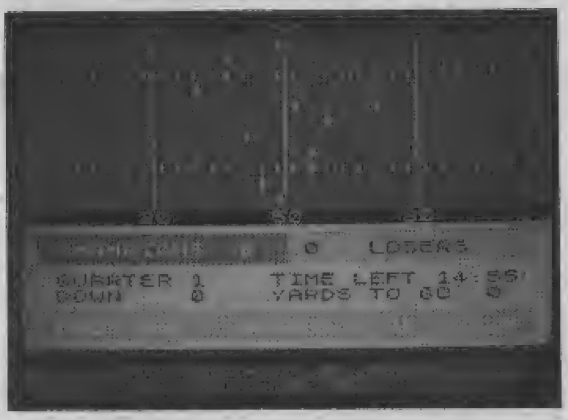


For a long time FOOTBALL MANAGER's animated highlights were the nearest to the real thing for many people, and the game's strategy elements still prove popular.

you go over the top or get too obvious. Match highlights are shown but may be skipped if you feel you can't wait, but the graphics here are pretty yuckky, so I suggest they are skipped.

SUPER LEAGUE **(Cross)** is last but by no means least. This engaging game offers all the features expected in a football simulation and is pretty decent. It's never received the hype attached to *Football Manager* and may therefore have been overlooked — it might be worth your while putting that right.

AMERICAN SPECTATOR SPORTS



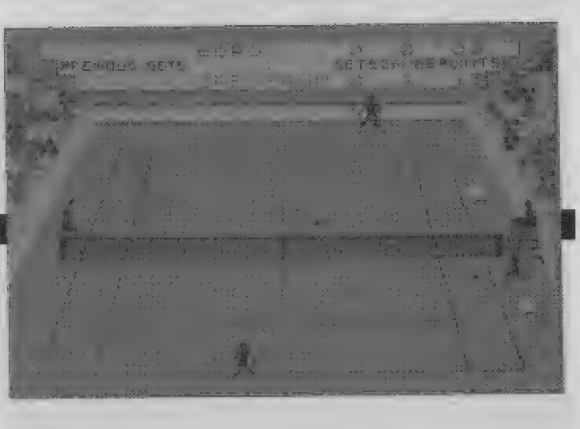
A simulation of complex strategy to match the convolutions of the real sport in the Argus AMERICAN FOOTBALL. Graphics, as usual in such games, are the weakest point, but are designed as an aid rather than a thrill.

American Football has always had a minority cult following here in Britain, but recent exposure on C4 TV has brought it a wider audience. For computer games it offers a minefield of strategy techniques to become involved with and is more to do with generals commanding armies than men kicking a ball about. . . .

AMERICAN FOOTBALL **(Argus Press Software)** has got to win the prize for the biggest box I've seen in ages! The game is a tactical simulation rather than a player-controlled action game. As is usually the case, then, the graphics are pretty simple, more of an adjunct so that you can see visually the effect of whatever tactic you decided upon. A lot of the game's content comes with the detailed booklet, which excellently teaches the basic principles of this extraordinary game. *American Football* **is a very good simulation of an increasingly popular game.**

US FOOTBALL **(Softstone)** is basically a 'football manager' with some American thrown in for good measure. There are few commands and the game is quite inferior to the Argus offering.

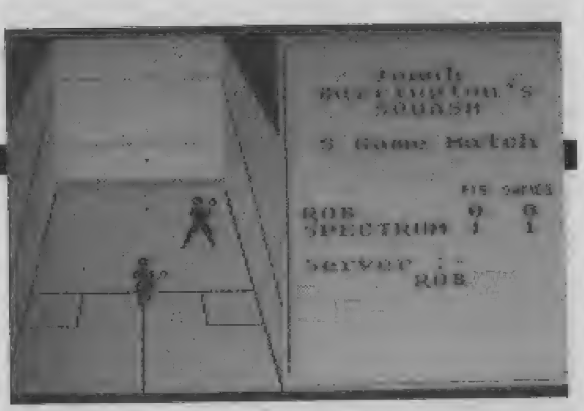
While I'm on the subject of specifically American games, **Imagine** (now under the **Ocean** umbrella) has just released *WORLD SERIES BASEBALL*, which is reviewed elsewhere in this issue. In a sense it is a follow up to Ocean's *Match Day* in playing style and in the excellent graphics. Well worth the price.



Because of the 3D complexities, real interactive tennis had to wait ages for its debut on the Spectrum, but when it came in the form of MATCH POINT, it was pretty spectacular.

TENNIS

MATCH POINT **(Psion)** is the only offering here. A direct descendant of the old video 'Pong', with its cleverly designed 3D graphics it's a quantum leap over the ancient flat bats and ball TV games of the late 70s. Hitting the ball is a little difficult at first but when mastered, some excellent rallies are to be had. I find the auto-changeover sometimes confusing. If, after a hard match you find yourself suffering from 'tennis elbow', then you can sit back and watch the computer play an exhibition match. *Match Point* is a worthwhile addition to any sporting library.



From the same graphic stable comes an interactive Squash simulation from New Generation — JONAH BARRINGTON'S SQUASH. This program also talks, using Jonah's voice!

Although it isn't quite tennis, a new game from **New Generation** promises all the thrills of a fast ball game in the form of *JONAH BARRINGTON'S SQUASH*, which is previewed in this issue by Lloyd Mangram.

BOWLS

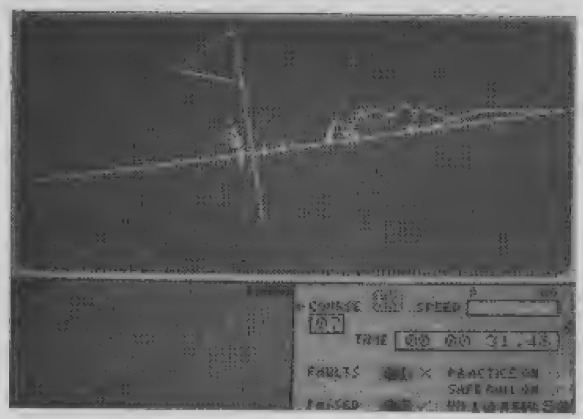
Just a quick mention here for *BOWLS* **(Lotus Soft)**. This unlikely action simulation of the sedate game is rather dated now, and has anyway been withdrawn. Basically you play by determining the direction of the throw using cursor keys. Strength is selected by the weight of bowl used. A pleasant change from saving the world as we know it, but hardly addictive. This is probably due to the fact that bowls is a game of feel, difficult to achieve by pre-set selections, and so it lacks atmosphere.

SKIING

Casting my mind back several months I can remember my first, very short and painful attempt at skiing. Have no fear as this too is a sport you can enjoy at home.

HORACE GOES SKIING **(Sinclair)** gets us off to a light-hearted start. This is a vertically scrolling game in which you guide Horace downhill, through the gates and avoiding the trees. It's inter-woven with a frogger type game. It isn't in any sense a serious sports simulation. Today it is dated but still playable, although it was never addictive.

SKI STAR 2000 **(Richard Shepherd)** is the only really serious attempt to implement a skiing simulation. Since it was reviewed in CRASH, Shepherd still haven't released production copies — we can only hope it will be out soon. It's a line drawn 3D game in which your view is of the oncoming obstacles. It also incorporates an elegant course editor, which uses icons to redesign the course. This is a very brave attempt which has addictive overtones that can be increased by playing it with friends. Great for a night out on the Piste.



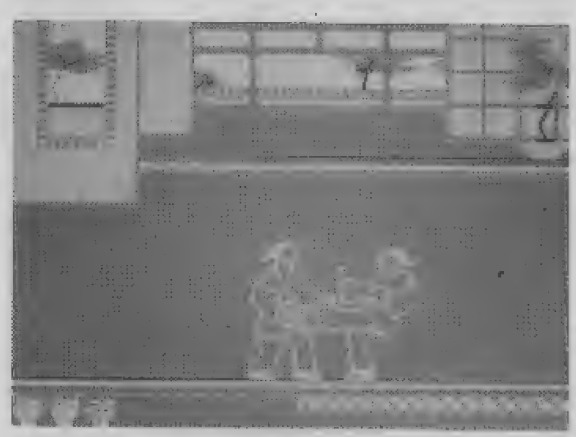
SKI STAR 2000, still unreleased, is the first real attempt at a 3D ski simulation. The game has many features such as the icon-driven course designer.

MARTIAL ARTS

KUNG FU **(Bug-Byte)** (or, as one reader corrected, Karate) is another unlikely sport to become a computer simulation. Bug-Byte have done an excellent job in creating a highly original and playable game.

The graphics are large, clear and well animated line drawings of the oriental experts. Aiming accurately placed strikes and kicks at your opponent until he collapses is the object of the game, while retaining the correct defensive tactics. It makes a nice change from the violence of shooting aliens. The movements are nicely responsive and the attacks well performed — in fact the movements are very stylish. Unfortunately the game gets a trifle repetitive as you progress, but this is only a slight quibble.

There could be more attempts in this area now that Bug-Byte have shown the way. I suppose you could include *BRUCE LEE* by **US Gold**, but this is definitely an action arcade game, which precludes much of the genuine skills required in *Kung Fu. Bruce Lee* is also reviewed elsewhere in this issue.



Bug-Byte's elegantly designed and surprisingly playable KUNG FU, brings oriental martial arts to the armchair sportsman.

POOL/SNOOKER

There are quite a few games of this type about, the better ones tending to maintain a high level of atmosphere which is partially due to good graphics and 'real' features such as ball spin. Arcade Pool was of course a popular pub feature and the computer simulation became popular with software houses quite early on in the age of the Spectrum. It took a bit of time until the quality of graphics matched the requirements of a smooth ball movement, however. All the games mentioned have the ability to vary the strength of the shot.

POOL **(CDS Microsystems)** has been out for ages now. It's a good version with accurate ball movement and simple, yet nice control. Cueing up is achieved by moving a cursor around the edge of the table. Despite its age it's still a playable version, and has proved enduringly popular.

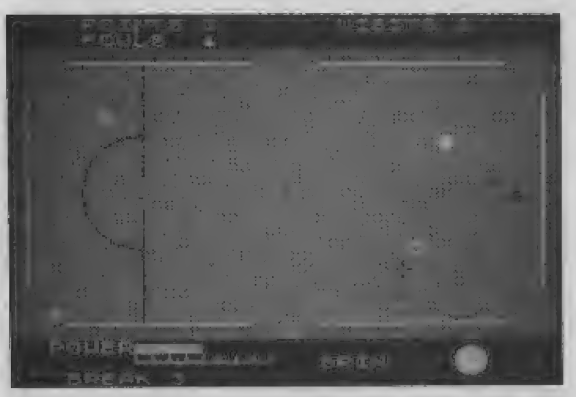
POOL **(Bug-Byte)**, another OAP, is a less close copy of the original. It allows positioning of the cue ball before taking a shot. Even so, this is not an easy game. The graphics are clear, a bit on the large size though, and not very colourful, exhibiting some flickering when in motion.

POOL **(Abrasco)** is now unavailable, but I'll mention it anyway for the sake of history. This game allowed a league to be formed — a nice feature. The graphics were adequate although ball movement was too rapid. Overall a pretty reasonable version.

One of the grandfathers of Spectrum Pool, POOL from CDS gets the ball movement pretty well and uses a friendly cueing system, slightly updated on their Steve Davis program.

SNOOKER

The most recent is STEVE DAVIS SNOOKER endorsed by the famous star himself. This is undoubtedly the best of the table games.



VIDEO POOL **(OCP)** is a recent addition, and is probably the best of the lot. The screen editor allows trick shots to be set up, and game variations include 'pot the ball in number order'. The graphics are smooth but not over colourful — lack of colour is a feature of all these games, but more would probably cause messy attribute problems (Oh for a Spectrum hyper plus).

SNOOKER **(Artic)** was the first Spectrum Snooker game. It's got all the right colours but the ball movement is a little on the sudden side. Direction is not controlled in the more normal manner of a moving cursor dot but by a cursor controlled direction indicator line. This is okay but it doesn't have the 'right feel'.

SNOOKER (Visions) is another unavailable game. It used a cross wire to indicate cue ball direction. The graphics were fairly average but the game did incorporate ball spin, a useful feature, and it remained a decent game in its day.

STEVE DAVIS SNOOKER (CDS Microsystems) is the follow up to their *Pool*, and a worthy one too. The game contains good graphics and has high playability, allowing the use of side spin, screw and top — factors which all add to the interest of the game and the skill obtainable. Cross wire control is used here too, it's fast and effective. On the whole the use of colour (rather essential in snooker) is good, with only some doubts between yellow and green.

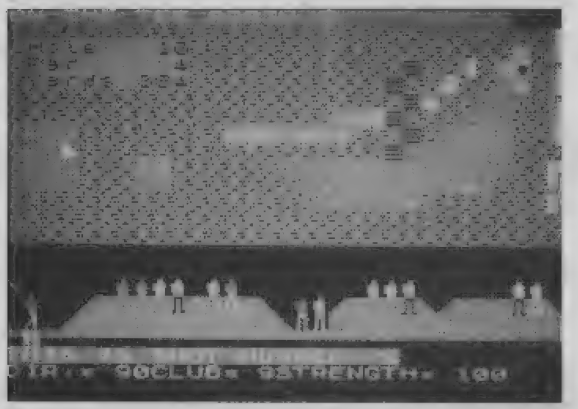
The ST ANDREWS GOLF course is famous enough to withstand Artic's less than successful attempts.

GOLF

Golf was a 'natural' for the computer from the word go. The real problem lies in how realistic the simulation can be made to feel and how many real elements, like wind, can be incorporated without making the game pointless to play.

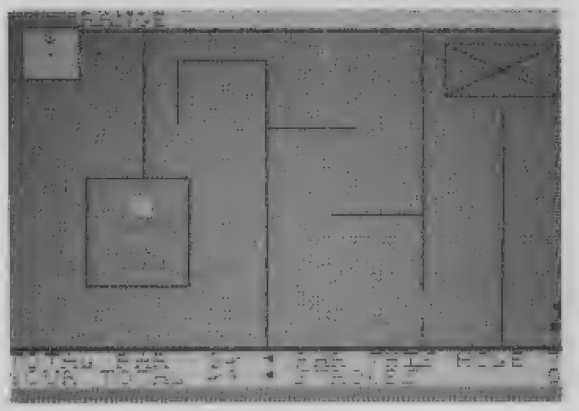
GOLF **(Virgin Games)** is, like so many of its colleagues, written in BASIC. This isn't always quite the drawback it might seem, but in this particular case the program crashes if the wrong input is used — and that definitely is a drawback! As a result of the BASIC and the way it has been used the graphics are drawn with aching slowness and look a bit boring, which tends to make the game the same. Options are given for handicap, club selection, direction and strength of shot, and great play is made of the wind variable — too much though, the game can quickly become unplayable, and the direction compass idea is the most cumbersome of them all.

But Ocean's ROYAL BIRKDALE only goes to show that golf to date has remained a rocky shore for software houses.



ST ANDREWS, GOLF **(Artic)** is a reproduction of the classic course. Well known parts of each hole are shown and so is a bit of the history. Again, the graphics are rather simple. Club options and directions are featured, as well as a close up section for the green shots. This game is more elegant than the Virgin one, but it still leaves a bit to be desired.

ROYAL BIRKDALE **(Ocean)** is another version of golf featuring a famous course. This program sports its best feature at the start — the screen picture. Also written in BASIC, this (for Ocean) early sports simulation is also their worst, and it doesn't rate very well against the other golf programs. Direction and type of shot are the main variables here.



With *HANDICAP GOLF* **CRL**, of all people, broke the rather boring line of golf games. The graphics cannot be described as ultra-brill but for BASIC they're good and they certainly walk all over the other golf games. This is a very scenic version with animated caddy as well as player and some neat little touches throughout, especially in the playing mode. Even today, there's still nothing to touch it.

CRAZY GOLF **(Mr Micro)** is not a traditional style golf game as it's based on the 'Blackpool' front crazy golf course scenario. The idea happens to be a good one, but the uninspiring graphics spoil what could be something worth playing.

ROAD RACERS

Many of these programs verge on being arcade games rather than sports simulations, but I've included them because I haven't played on many of them for a while — so there! The usual features are several tracks upon which to race, usually based loosely on the real thing, opponent computer-controlled cars, road hazards including water, oil and night driving.

CHEQUERED FLAG **(Psion)** was probably the first true car simulation. It's well implemented with adequate graphic presentation. The game itself is pretty good, but is a little too serious if you are looking for race fun, as you are the only car on the track, racing against the clock. It is improved by playing in groups and trying to improve times of the various tracks offered.

FORMULA ONE **(Spirit** now **Mastertronic)** was the game that promised all but gave substantially less. The ill-fated ashtray — sorry, steering wheel — was a joke. So instead of rolling it over the keyboard as intended, the keys have to be pressed — and control is appalling. Mind you, the 3D works fairly well.

POLE POSITION **(Atarisoft)** — the 'real thing' — eventually arrived almost a year late and generally was not up to the standard expected, or up to that of the original. However, it is still above avgerage as a game, graphically reasonable with good colour. The car doesn't handle all that well though and it's high price knocks it on the head.

ENDURO **(Activision)** is another expensive official game. The 3D graphics are fast and smooth but not strongly detailed. This is less of a 'cockpit' view game Keyboard response is good and so is car control (rather vital in such games). *Enduro*'s strength is in some of the features retained from the original such as twilight and night driving. Again an above average game hammered by its over-pricing.

RALLY DRIVER **(Hill MacGibbon)** is a more serious simulation which is half educational in aim. The game is well programmed and contains too much content - yes, that's *too* much. A co-driver is a must to read the map if you are going to get round safely and fast. This one, too, is rather expensive, but you do get your money's worth, loads of features — a real driver's game.

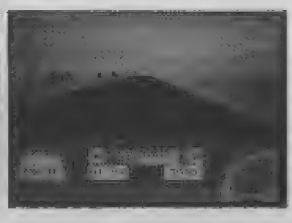
GRAND PRIX **(Britannia)** is now very dated. The graphics were a brave attempt at the time, but even then they failed and are certainly poor by today's standards. Another drawback is the unrealistic way you have to slow right down to overtake another vehicle safely, and in the end the game becomes repetetive. Only one track.

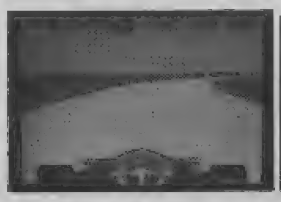
3SPEED DUEL **(DK'Tronics)** was released as a competitor to *Pole Position* many, many months before the Atarisoft game. It was and is pretty average all round with fair graphics and a completely uncontrollable car. Several tracks and ice/water features, but they make little difference.

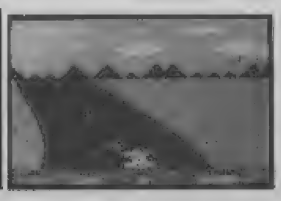
FULL THROTTLE **(Micromega)** is a biker's paradise and it remains a great game with excellent 3D graphics which are smooth and very fast although not very colourful: In my opinion this game outaccelerates all the others. Features 39 other riders, several tracks and some hazards.

FORMULA ONE **(CRL)** is more of a team simulation. The actual racing plays a fairly small part overall. In fact this is just as well because you don't race — you watch it. The idea is to spend money on the car and driver, but these parameters do not seem enough to me. Pit stops are player controlled, but the graphics are nothing special. A change from actually racing and not too bad a one at that.

Digital Integration still haven't finished their long-awaited *TT RACER*, which is expected to be a direct competitor to *Full Throttle*. Either the opposition has scared them off, or they have spent the time making it far better. It really should be out soon!







FORMULA ONE, infamous for the Spirit Software rip-off, finally made its appearance with a plastic yellow 'ashtray' for a steering wheel.

Of the road racer games, CHEQUERED FLAG is the most serious and simulation-like.

A real simulation of rallying is Hill MacGibbon's RALLY DRIVER — almost an education program.

DK'Tronics entered the 'Pole Position' stakes with SPEED DUEL, but the car was very hard to control.

One of the earliest 'Pole Position' contenders was Britannia's GRAND PRIX. The 3D line graphics for the cars were not bad, but playability was very low, as was content.

CRICKET

Like the sport itself, most of these games seem to be yawn-inducing. I'm sorry, I don't find cricket the least bit interesting, but others do, and so it's only fair to give them a chance.

HOWZAT **(Wyvern)** is endorsed by Brian Rose (England). He called it 'addictive'. I disagree. This version is simply not interactive enough. All you do is to select a team and initiate play. I think the atmosphere is lacking and the poor graphics do nothing to help. At least it does have some graphics.

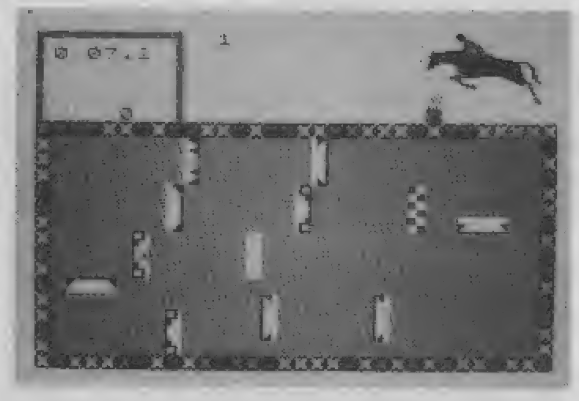
CRICKET **(TJ Owen)** has no graphics, being text-only. Consequently you would expect it to keep you busy with inputs, but in fact there's not that much in it. Addictivity is low due to lack of user involvement. This cricket is for fans only, I'm afraid.

ASHES **(Pulsonic)** does contain some graphics, but they are merely little unanimated stick figures. Like the other games, *Ashes* is typical of computer cricket games, just too cold (even in summer). At least you do have to press ENTER to bat or bowl a ball, so there is something to keep you awake, and you can play around for ages adjusting your stick men on the field.

TEST MATCH **(CRL)** was the first of the lot, and as with their *Handicap Golf*, probably the best. Strategy is limited, but there is a graphic field with a funny running cursor for the bowler. Participation is also limited beyond choosing bowlers, and the game runs largely by itself.

ASHES, a cheapie from Pulsonic, exhibits all the classic failings of the cricket simulations, lack of player involvement and very poor graphics.

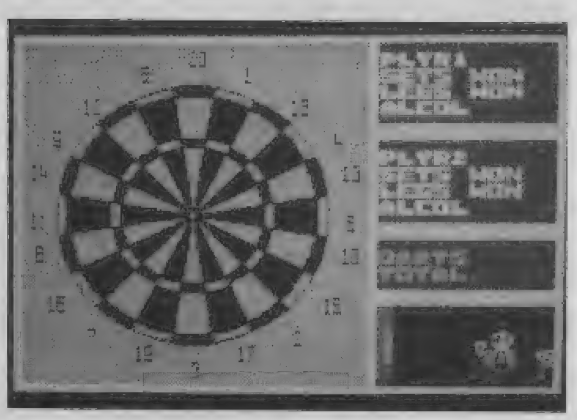
HORSING ABOUT



SHOWJUMP is a rather unusual idea for a computer game but IMS do well with the split screen graphics. The jumping horse is well animated, although the overhead view leaves something to be desired.

SHOWJUMP **(IMS)** is a clever simulation using split screen graphics. The layout of the course is shown using rather simple graphics. At the top of the screen is the horse and rider. A pointer moves around the course as you control the horse and jumping can be observed at the top. The actual horse graphics are nicely drawn and stylishly animated. Control is not too easy, and thus it makes the game fairly hard. Nothing outstanding, but still a fun idea. Interestingly, IMS were the first I know of to use the split screen idea, which has recently re-appeared in *Grand National* and *World Series Baseball*.

DERBY DAY **(CRL)** is a gambling game with horses. The game is a bit on the simple side, using simple graphics (BASIC). In a nutshell, you are betting on flies crawling along a wall. An option to chose the horses and their odds is an interesting feature, but generally this 'family' game is boring.

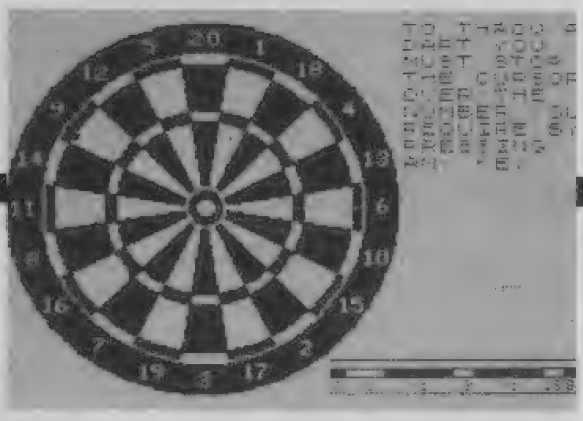


A game of excessive drinking skill, DARTZ hardly qualifies at all.

RACING MANAGER **(Virgin Games)** is a game I don't think you can get any more. It was a half-text/half-graphic simulation in which you managed a stable, trained horses, brought them to a peak of fitness and then entered them for races. There was a betting and prize money element and the races were shown graphically over the full length or just the last few furlongs if you preferred. The strategy elements weren't bad, but the graphical end left a lot to be desired.

RACING PREDICTIONS **(Buffer Micros)** is not a game — it's a program for calculating which horse has the best chance of winning a race. Of course, it's only based on the input information which is basically speed and weight factors. Don't expect to win a fortune — use the results as a guide not a definite bet. Horse racing or any other sport is never definite, it's not based on logic. If it was, the bookies would go bust overnight. When was the last time you ever saw a bankrupt bookie?!

GRAND NATIONAL **(Elite)** is the very newest program about horses, this time over the 'sticks', and topically enough, released in time for the Grand National (which is taking place any second as I write this). That is reviewed fully, elsewhere in this issue.



CHAMPIONSHIP DARTS went a long way to being an interesting simulation of darts.

DARTS

An unlikely sport to become a computer game, but then few people thought it would make a good TV spectator sport and it has done.

DARTZ **(Automata)**, like their *Olympimania*, can hardly be considered as a serious contender as it's more concerned with drinking alchohol than with throwing darts. At first the game is fun but the random elements tend to hammer the addictiveness.

CHAMPIONSHIP DARTS **(Shadow)**, now deleted, was more of a real game. A simple system of pressing a key to freeze a sweep line chose the darts board segment, while a second sweep bar could be frozen to choose which ring within the segment the dart came to rest in. Although this was a decent simulation, it could hardly have been called exciting.

ERIC BRISTOW'S DARTS **(Quicksilva)** could be summed up similarly. the game is well laid out, with a good board, but you don't have a lot to do. If you want a trebble twenty then you input T20. Aim adjustments are possible using the keys but the game just doesn't give the player enough to keep him happy. A useful feature, though, is the 'checkout' which calculates finishes, ie 29 could be S17 and D6. Unless you happen to be a darts fanatic, there isn't any way this game could be called addictive.

Finally, there is *DARTS* **(Mr. Chip)**. I've not played this one before and sadly my copy would not load, so you'll have to find out for yourself what this is like, but don't expect too much in the way of speed and excitement — perhaps just a little tension.

MISCELLANEOUS

RUN YOUR OWN LEAGUE **(Silicon Joy)** is not a game, but an applications program that does just as its name suggests. It is good at what it does and will no doubt be an aid for club secretaries who happen to own Spectrums. It will give fixtures and keep league positions, providing printouts (if you own a printer of course). Kevin Tomms (of *Football Manager* fame) says that the program is not necessarily related to football, and may be used for any league table sport.

That just about wraps up Grandstand for today. There seems to be no falling off in the popularity of sports simulations, especially in view of the fact that programming techniques and graphics have improved vastly since so many of the above-mentioned games appeared, that many of them could be safely redone. Certainly in the area of golf, there is room for a really great version.

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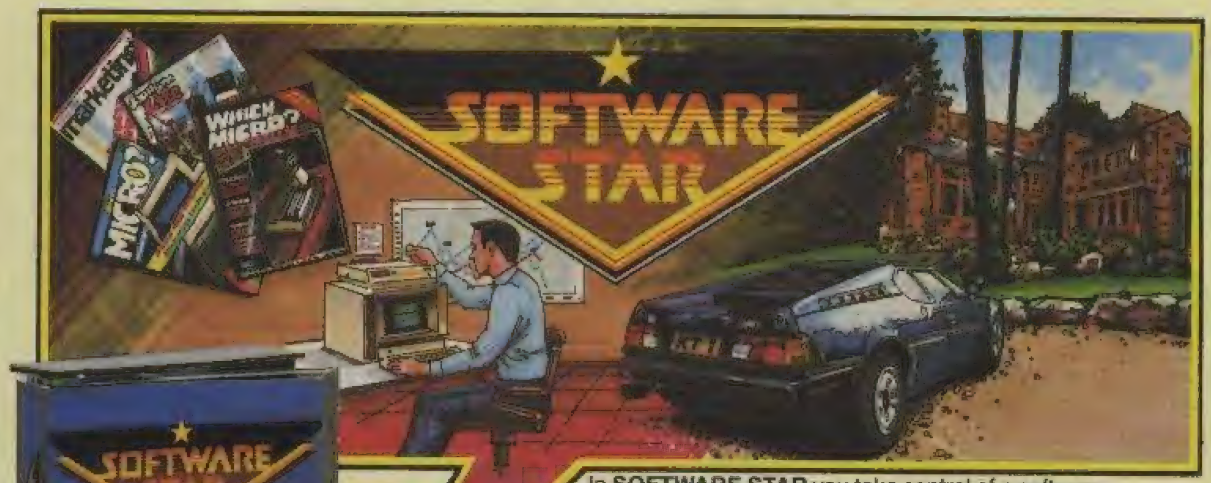

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TECH NICHE TECH

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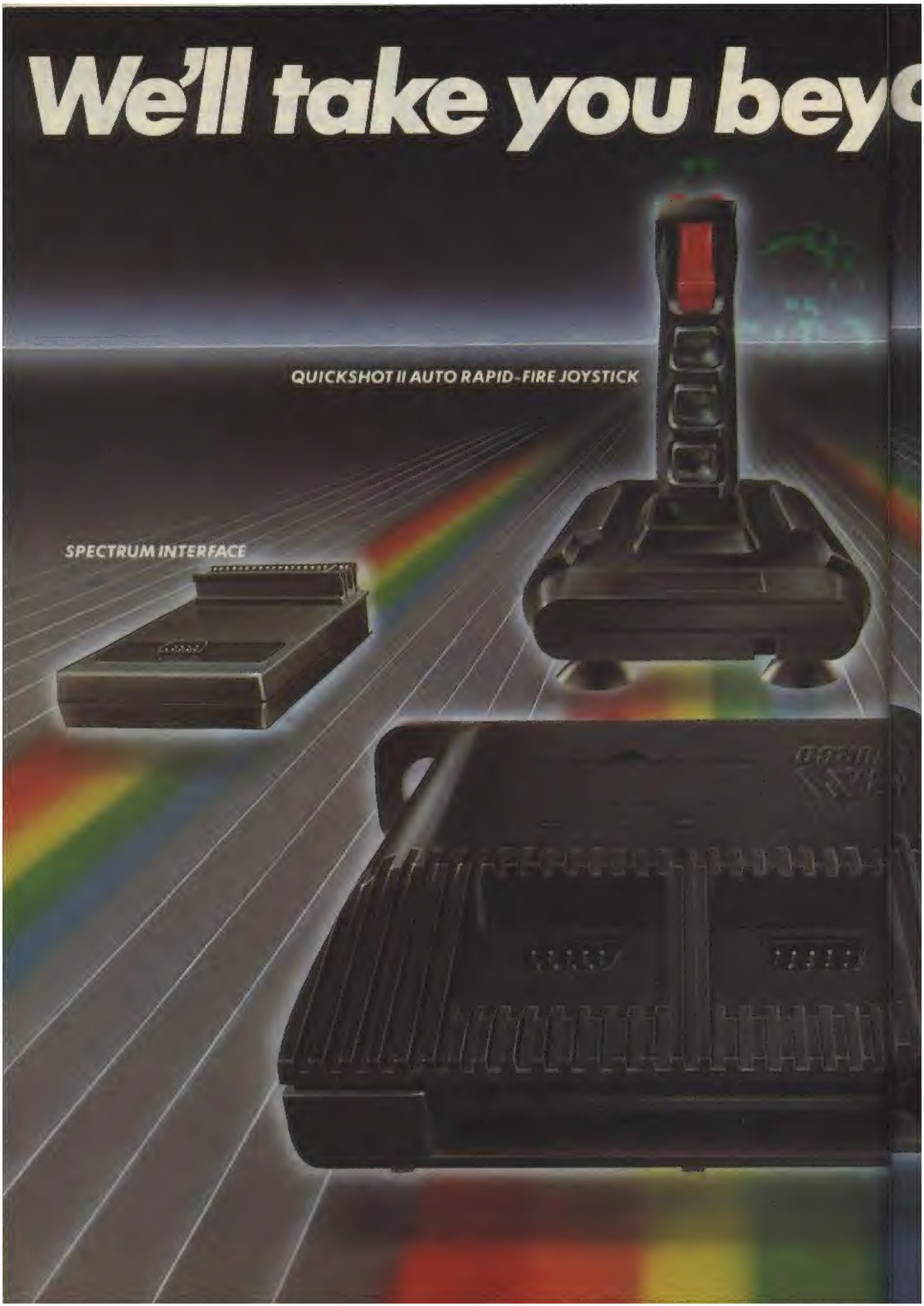
The Movit series of robots, made in Japan and available in the UK through **Commotion**, won't quite take the place of Rover or Tibbles — but are an interesting introduction to robotics at an affordable price.

Half the fun is in assembling the little beasts, which come Meccano-like in a kit of bits. A pleasant couple of evenings were spent creating Avoider, which (who?) is the start of Tech Niche this issue. Once built, Avoider uses an infra-red send and receive system to detect objects in its path — much the same as bats used sound waves. Scampering around on its six legs, Avoider copes with most

52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objects placed in its path, but is flummoxed by black objects, which absorb the infra-red beam. The beastie has already won favour in the office, and apart from a slight limp (which was cured with Superglue), has stood up well to the rigours of CRASH Towers, wading through the empty coffee cups and fag ends with considerable aplomb. The ultimate Olibug really.

When it comes to assembling the three hundred odd components that come in the Avoider kit (ours was scrounged from **Bulldog Distributors** at the LET Show), you are advised to have a cross point screwdriver, long-nosed pliers, a hammer and a knife handy before you begin. A set of jeweller's or 'precision' screwdrivers would also be helpful, and it soon became clear that all but the most nimble-fingered will need a pair of tweezers to pick up and place some of the fiddly bits.

The instruction sheet that comes with the parts splits the assembly task into twenty stages, each of which is illustrated fairly accurately in a frame which clearly identifies all the components needed at each step.

Admittedly there were a few moments where the intentions of the author were less than plain, however. Something to do with the fact that the bloke who wrote the idiot guide to assembling Avoider had probably knocked up about fifteen before he sat down to write the instructions, and forgot it could get tricky first time round. Not to moan though, a good set of instructions really.

From start to finish, the assembly process took about five hours and was a lot of fun — although a little fraught at times when tiny components sproinged out of the jaws of the tweezers and hid themselves in far corners of the room.

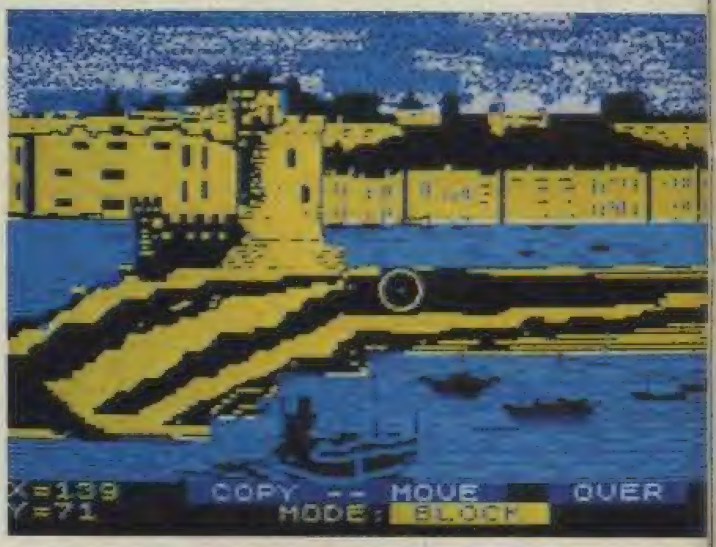
A clear table is vital to successful Avoider-making, and the only logical way to attempt the job is to lay out all the labelled bags of bits, in order, on your work surface before starting. Then each frame of the assembly sequence can be undertaken by picking the components needed for that stage from the bags (tweezers invaluable here), and laying them out on the table before putting them together.

Once Avoider is standing there in six-legged glory, you'll feel a sense of achievement. The assembly process is very rewarding. Bear in mind, however, that a small amount of mechanical fine tuning may well be needed before your assembled kit becomes a lovable creature capable of movement. To begin with our robot was lame, as the drive gears for one set of legs failed to mesh properly which lead to some embarrassingly drunken lurchings. A little work, which included fabricating some spacer washers from scrap cardboard had the gears aligned, and Avoider was soon up and running.

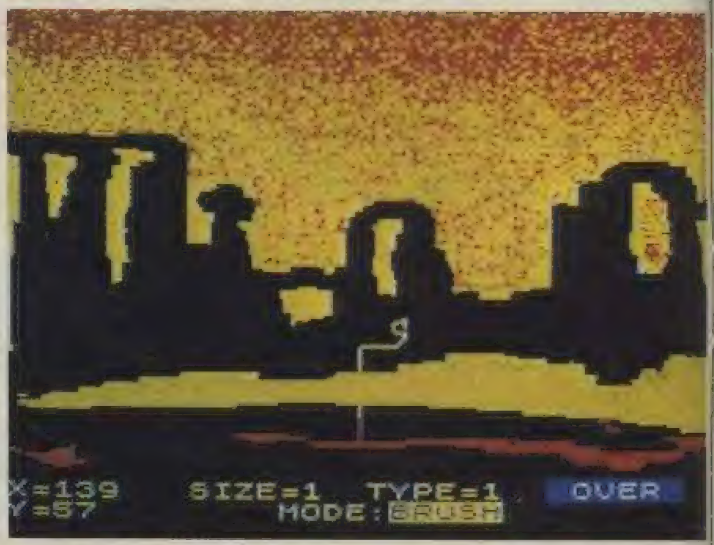
While Avoider is an intelligent machine, it's not mind-numbingly smart. It's only capable of moving forward until it detects a return signal from its infra-red output, when it executes a turn. It can't cope with black or dark objects, which absorb infra-red, and just grinds into them. If you put it on a table top, it'll blithely scamper over the edge, and it won't make tea or fetch your slippers.

Avoider is a non-programmable, single function robot — and doesn't pretend to be anything else. For the price (between £20 and £30), it represents an interesting introduction to robotics but remains essentially a high-tech toy. It is a lot of fun to put together, and the finished beastie is entertaining and amusing. It's just a shame the kit doesn't include a booklet explaining the way Avoider's 'Excellent electronic brain' actually works.

Eight out of Ten for Avoider — with luck we'll take a look at some of his brothers and sisters soon.



□ NEW MA



New Generation's excursion into utility software has proven to be an excellent exercise with their highly practical *Machine Code Tutor*. It has broken new ground with an assembler/editor entirely dedicated to educational purposes enabling foolproof monitoring of the end-users endeavours in machine code programming. New Generation's launch of *LightMagic* marks their entry into the graphic utilities market and expectations are raised for any innovative graphical features not found hitherto.

LIGHT-MAGIC

Producer: New Generation
Memory required: **48K**
Retail price: **£14.95**

Similar to many graphic utilities *Light Magic* consists of two main work areas, the *Screen Editor* and the *UDG Generator*. *Screen Editor* is accessed for screen display generation or amendment, while *UDG Designer* deals with the creation of up to seven different banks of User Defined Graphic characters. The Main Menu provides access to these two facilities, to the Save and Load routines for storing and retrieving screens or UDGs to and from tape, to the Keys/Joystick selection (Cursor keys, Kempston and Sinclair joystick) and to a routine which writes the Sinclair lower case letters into the first two UDG banks.

SCREEN EDITOR

Five operating modes can be accessed consecutively in Screen Editor by pressing Enter. These are Pen mode for line drawing, Brush mode for brush drawing, Block mode for colour work and macro facilities such as block copy, rotate and mirror and enlarge, Text mode for annotation work and UDG mode for UDG inclusion. The screen contains a cursor circle which can be removed with the command *CURSOR* (key K). The lower two screen editing lines contain the control panel with display of coordinates, Mode indicator and Band and Over status. The cursor movement is smooth and the speed can be set with keys A and S with an appropriate audio feedback. The general drawing technique is to toggle *DRAW* (key V) on and off with *OVER* (key N) set. This is equivalent to pen up and down. If *OVER* is not set, the cursor will reset pixels and destroy the existing drawing. A special feature is *BAND* (key B) which enables a line to be stretched from the point *BAND* was enabled to the current cursor position. Moving the cursor in a wiping action will cause the existing drawing to be wiped out similar to the action of a windscreen wiper. Pressing key B again will freeze the line and disable *BAND*. Circles may be drawn using the straightforward *CIRCLE* command (key C) with the radius as a parameter and similarly *FILL* (key F) will perform an area fill under the current ink colour. *POINT* (key Q) provides the usual plot pixel facility, but also acts as the reference point setter for *REFERENCE* (key R) which will reposition the cursor accurately to the reference point. *ENLARGE* (key E) will enlarge the quarter of the screen where the cursor is positioned to full screen size for detailed drawing, but care must be taken as single pixel lines may be lost when returning to the original size. Any detail should be drawn two pixels wide! This is rather unsatisfactory and a further snag becomes apparent when the detail to be drawn carries on outside the enlarged screen quarter as no automatic switchover is provided into the neighbouring quarter.

The ink colour is changed with *INK* (key X) and bright is selected by pressing cap shift and the colour key. *CLEAR* (key U) clears the screen or quarter screen (if YES is selected), but also changes the entire picture to the current ink and paper colours (if NO is selected). *GRID* (key G) displays the attribute boundaries for colour. The usual colouring problems exist due to the Spectrums unfortunate characterwide attributes. The best approach is to establish the drawing in black and white considering the colour grid positions. Making sure that *OVER* is set, *TEXT* mode can be entered. The required colour is selected using SYMBOL SHIFT/X and each character cell can be *OVER* printed with a space.

Corrections can be made by saving the picture regularly in memory (Cap shift 1), so that if the next move proves to be a disaster, the previous condition can be recalled from memory (Cap shift 2).

BRUSH mode provides very much the same facilities as *PEN* mode, but hands you a brush (cursor) for screen painting. The brush size may be varied with keys W and Q and ten different brush strokes are available from solid to airbrush style random dot spray. The airbrush facility is extremely practical, as it allows

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dense areas to be built up by covering the same area several times.

BLOCK mode is used for areas up to 64 character cells to be manipulated. *MOVE* (key M) repositions a designated area into a new location on the screen. The bottom right corner of the block is located with *POINT*, the top left corner with *MOVE* and the block is transported with the cursor movement to its new location and dropped by pressing *MOVE* again. *COPY* (key Z) behaves similarily, but leaves the original block position untouched, the block is actually copied. *MOVE* and *COPY* can be used with *ENLARGE* to enlarge or reduce specific drawing items. *ROTATE* (key 9) and *MIRROR* (key 0) rotate and mirror the top left 8 x 8 block image. *MOVE* can be used to locate the detail in question.

TEXT and *UDG* mode provide the inclusion of text or UDG characters on the screen. By positioning the cursor individual characters may be rotated (key 2), mirrored (key 3) or inverted (key 4). A character may be expanded to double height with CAPSHIFT. In *UDG* mode one of seven UDG banks can be selected (key 1).

UDG DESIGNER

***The** UDG DESIGNER* provides eight functions. The UDG banks may be viewed and loaded into the working area (key V). An individual UDG character is loaded into the 8 x 8 grid on the left of the screen and similarily filed back into the bank (key Q). Moving the cursor in the grid the individual pixels may be set or reset with key 1 or the joystick fire button. Special functions are again *ROTATE* (key 2), *MIRROR* (key 3) and *INVERT* (key 4). The UDG's created are positioned in memory and their address is listed in the manual. An example program is provided in the manual for inclusion of the UDGs in other programs.

COMPSCREEN

COMPSCREEN is a utility for compressing screen data and is loaded separate to the main graphics program. The amount of memory it will save depends on the screen content; The more detail in the picture, the smaller the saving. The data is compressed and saved with a short machine code routine that reconstructs the data. A screen is loaded using option 1. Once the screen is compressed, the start address and the length of the data is displayed. Further screens may be compressed by answering YES. Option 4 will display the start address of the compressed data and the reconstruction routine together with the required RAMTOP value. To use the screens, ramtop has to be initially set with a CLEAR command and the screens loaded. A picture can be displayed with a RANDOMISE USER call and data instruction of screen start.

NEW MAGIC?

LIGHTMAGIC is a nicely balanced graphics utility which requires little time for familiarisation. Its most outstanding aspect is the novel *BRUSH* technique which can provide a lot of entertainment and can be a very useful tool for professional creations. It is a pity that the *ENLARGE* facility has not been thought out more carefully, but this is probably made up for by the powerful *BLOCK MOVE* and *COPY* commands. The manual includes a working example to familiarise the user with the required work technique and all functions are clearly described. Several new graphic utilities are about to appear and it will be interesting to see how *LIGHTMAGIC* will compare with the competition.

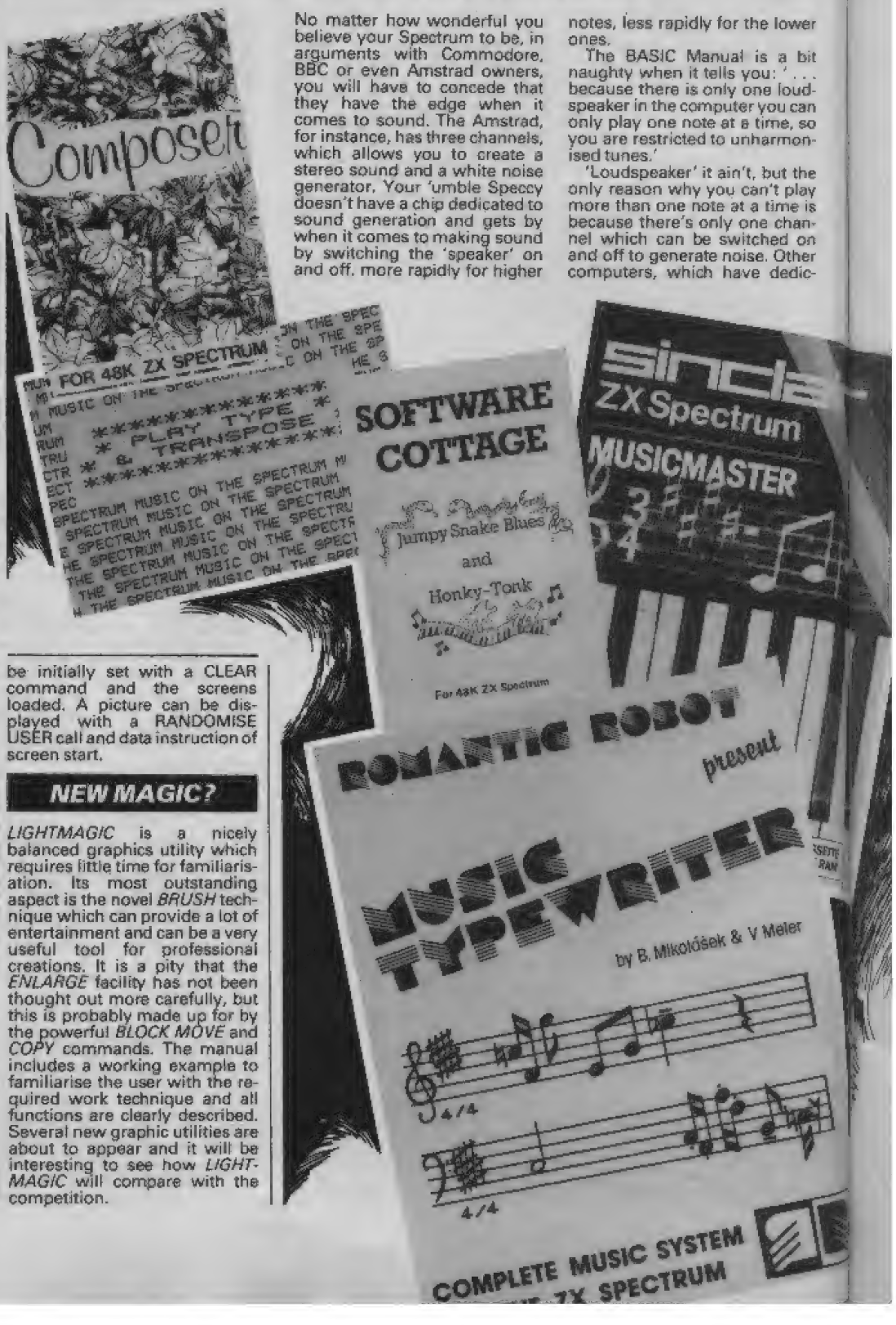
MUSIC MI

ONCE YOU'VE DIGESTED Chapter 19 in the Spectrum BASIC Manual, it becomes quite clear that the Spectrum isn't ideally suited to making music. The BEEP command, used to activate the little on-board buzzer is aptly named, and the manual is refreshingly honest when it states; 'Only the middle range of notes are really any good for music; the low notes sound too much like clicks, and the high notes are thin and tend to warble a bit.'

No matter how wonderful you believe your Spectrum to be, in arguments with Commodore, BBC or even Amstrad owners, you will have to concede that they have the edge when it comes to sound. The Amstrad, for instance, has three channels, which allows you to create a stereo sound and a white noise generator. Your 'umble Speccy doesn't have a chip dedicated to sound generation and gets by when it comes to making sound by switching the 'speaker' on and off. more rapidly for higher notes, less rapidly for the lower ones.

The BASIC Manual is a bit naughty when it tells you: ' . . . because there is only one loudspeaker in the computer you can only play one note at a time, so you are restricted to unharmonised tunes.'

'Loudspeaker' it ain't, but the only reason why you can't play more than one note at a time is because there's only one channel which can be switched on and off to generate noise. Other computers, which have dedic-



ICRO, PLEASE . . .

Just to prove that Tech Niche isn't all soulless stuff about insensitive peripherals, JON BATES and GRAEME KIDD throw away their joysticks and take up the baton to conduct a round-up of sensitively musical software.

ated sound chips, let you use several channels and that allows more complicated, harmonised tunes to be put together. Like the manual says, if you want anything more than simple unharmonised tunes on the Spectrum 'you must sing it yourself.'

As you might expect, there's quite a lot of specialised hardware and software available which extends the capabilities of the Spectrum, moving it towards (and maybe even past) the level of musical competence achieved by other machines. We'll be taking a look at these bolt-on musical goodies in future Niches; for the present we've confined ourselves to a close examination of the software which runs on the basic Spectrum.

We found six programs which, to a greater or lesser extent, take the pain out of programming tunes in the 'BEEP 1,0: BEEP 5,3:' format, and three musical education packages which go part of the way to helping the musically illiterate get to grips with the subject. Rather than plunge in at the deep end on our own, we persuaded a real live musician — **Jon Bates** — to help evaluate the software.

A professional keyboard player, author of a book on synthesisers and keyboard teacher, Jon invented a new rating for the purposes of these reviews — MUSICALITY. We've taken account of Graphics, Educational Value and User-friendliness, but Musicality is, in effect, a musician-friendliness rating and depends on the musical accuracy of the software. Before awarding the Musicality rating for each program, Jon asked himself the question, 'is it in accordance with the basic rules of how music is written and sounds?' 0/10 for Musicality would make a musician scream, he told us!

The other half of the dynamic reviewing duo, Mr Kidd, claims to know a bit about computers but is a self-confessed music illiterate. Nuff said about *him*.

MUSICMASTER

Sinclair/Incognito
£9.95

Musicmaster allows you to enter notes either direct onto the stave, pressing keys for the name of notes A - G and prefacing them with S for sharp, L for flat or N for natural, or you can use the keyboard overlay supplied with the cassette to make the top two rows of your Spectrum's keyboard simulate a real keyboard.

The program offers all the basic elements needed to start making music with your computer, allowing the user to 'music process' a tune once it is entered into the machine using the editing facility. Only one tune can be held in memory at any one time, which can be mildly infuriating at times, given that there is room for up to 1000 notes (or events, as a rest counts as a note), but there is a facility which allows you to save a completed tune to tape so it can be loaded back into the computer at a later stage.

When you enter a tune and play it, the computer plays the notes sequentially from start to finish. If a section of music is to be repeated, it's necessary to edit that section into the sequential tune file. Another minor disadvantage of *Musicmaster* is the lack of a repeat command — to replay a tune you have to go back through the menu, but it does allow a tune to be played back at different speeds.

Overall *Musicmaster* is a reasonable package which assumes no musical knowledge on the part of the user. Between them, the manual and the help function in the program were good, giving the user enough to get by on musically to make full use of the program's capabilities. While it isn't intended to be an 'educational program' as such, being more for amusement, it quite neatly teaches a little about keyboards.

In striking the middle line, aimed at someone who is neither a dedicated programmer with no musical knowledge on the one hand, nor a keyboard wizard who's scared stiff of computers on the other, *Musicmaster* is a success. It's a realistic way of converting a Spectrum into a music processor and keyboard which presented our team with no problems whatsoever in use.

FINAL VERDICT

Graphics: 7/10 Good, if a little on the tiny side
Userfriendliness: 8/10
Musicality: 7/10 Slightly limited on pitch range and lacks the ability to put expression in music
Educational Value: 7/10 Help facility and manual would give a total novice a reasonable start into keyboard music

COMPOSER

Contrast Software
Farnham Road, West Liss, Hants
073 082 3832
£5.95

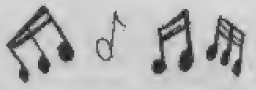
Composer appears to have been written more for someone who already knows about music. The program presents a bit of an intellectual challenge to the user, in that you can write and 'music process' tunes but not in the conventional notation used for music.

The cassette inlay gives a brief summary of the modes used by the software, but the full instructions are presented on screen in one long chunk — which can be printed out, admittedly. The inlay states that full screen instructions can be recalled any time, but in use there didn't seem to be any help function which could be called up for advice on what to do next. Without a hard copy of the instructions in front of you, it was easy to get lost in the program, and it wasn't easy to write a tune into the computer to begin with.

Composer uses a numerical notation, by which the duration of a note is entered as a fraction of a second rather than by note names — crochet, quaver etc. From the musician's point of view this is an added difficulty, and non-musicians could also be put off. Tunes written into the computer are not displayed onto a musical stave, and as a result it would be very hard for a non-musician to copy in a scored piece of music.

A tune of up to 199 notes or events can be entered into memory. One useful feature worthy of comment was the facility which allows you to hear a note once it is selected, and before it is entered into your growing composition, which allows you the option of changing your mind!

Overall *Composer* has the feel of a nice idea poorly executed. The displayed keyboard, for instance, has the keys labelled for the notes they represent — but the labels are out of alignment; the program is far from user-friendly, coming up with unhelpful error prompts like 'out of range, retype' rather than actually reminding the user of the range of acceptable values before requesting 'retype'. *Composer* presumes the user knows all about music before sitting down at the Spectrum, it doesn't help you get into the subject or the software, and then proceeds to present a new form of musical notation on the screen.

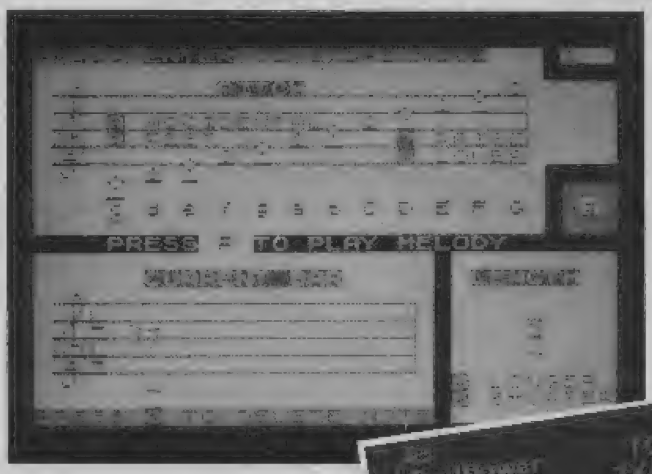


FINAL VERDICT

Graphics: 3/10 Some alignment problems; is blue text on a blue background ideal?
Musicality: 3/10 Apart from the numeric notation, there seemed to be a slight timing inaccuracy in the demo tune which was repeated.
Userfriendliness: 4/10 Screen layouts were not self-explanatory and a help function could have made life much easier. With a printed set of instructions in front of you and the patience to get into the program, no doubt quite rewarding.
Educational Value: 0/10

MUSIC MAKER

Bellflower Software
Rosewood Avenue, Greenford, London
01 903 1816
£5.75

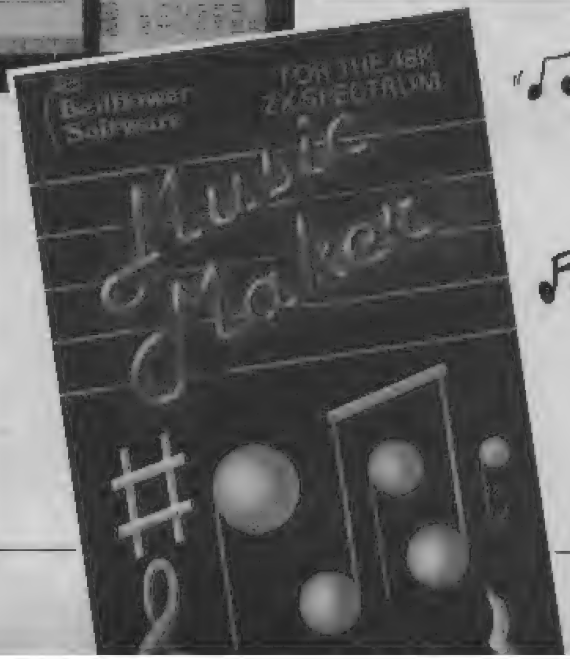


Music Maker comes with a fairly detailed inlay card which takes the reader on a whistle stop tour of musical notation and theory. It makes good sense to someone in the know but might be a little confusing to the novice. It must have been a difficult task to compress so much information into such a small space, and it's unfortunate that there's no additional help in the program itself, which is a bit complicated.

The input method, using cursor keys (which move rather rapidly when selecting) takes a bit of getting used to. The screen displays the bar you're working on, and while it plays each note as you add it — giving you the option to delete it immediately — there's no real editing facility. Notes can only be deleted from the end of an assembled tune, and if you find the third note in your fifty note composition is wrong, there's no option but to delete the last forty seven notes you input before you get to the mistake, and then lay them all back in again. It can get a bit tedious keying in a long tune, and if you're re-keying an old tune which you've just deleted by editing, the aggravation factor increases dramatically.

Musically the program is a bit limiting, in that there are only ten playback speeds to choose from, and it seemed impossible to tie notes together so that they can be sustained over a bar for instance. The program accepts up to 200 notes or events and allows tunes to be stored on cassette and printed out.

In the main, a worthy piece of programming which scores plus points for printing a couple of tunes on the inlay for the user to try out.



FINAL VERDICT

Graphics: 6/10 A bit chunky, and the screen display is rather cluttered.
Musicality: 6/10 The pitch range is slightly limited, as is the range of beats per minute on offer, but quite accurate overall.
Userfriendliness: 5/10 Only half way there!
Educational Value: 4/10 The inlay card reads like it was written as an afterthought, in a bit of a rush and could confuse as easily as enlighten.

60

·JONAH·
·BARRINGTON'S·
SQUASH

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There are 4 levels of difficulty, and depending how fit you are you can play 1, 3 or 5 game matches! Check your score with the on screen display, but as your eyes are too busy watching the ball, Jonah Barrington acting as marker calls out the score for you. All this is due to a programming breakthrough that enables your computer to accurately reproduce the human voice without any hardware add-ons!

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So how was it done?

It all started with a suggestion that we should prepare a package to give readers a gentle introduction to the kind of software that businesses were running on their computers.

At that stage there was no intention that it should be an ambitious package. Just a simple program that could be sold at a very low price.

We called in experts in business software programming, told them what we wanted and sat back to await results.

What happened next was totally unexpected. For they all came back with ideas that were to considerably expand our original brief.

In the end what had been planned as little more than a beginners' guide to word processing, database management, spreadsheets and graphics had been turned into a full scale suite of programs covering all four applications.

In fact the only part of the brief that remained was our original insistence that the package should be quick to learn and easy to use.

And despite all the extra sophistication that has been written into it, we decided that, as a service to our readers, the price should still be kept at the very low figure originally fixed.

How does Mini Office operate?

Using the **Word Processor** is simplicity itself. There are none of the cryptic coded instructions that had to be mastered by people learning the early word processors.

You start by selecting the size of type you prefer – either normal or double-size. The latter is a feature that you cannot find on any other word processor.

It is particularly suitable for the partially sighted – in many cases giving them their very first opportunity to use a word processor.

This means they can use a micro to compose a letter, using the double-size mode, and then print it out using normal size type. For many people this could be the first time they can send out a perfectly typed letter without outside help.

Primary school teachers are also expected to make great use of the double-size function, both on the screen and on hard copy printouts.

A unique feature is the double size text option in both printer and edit mode – perfect for young children and people with poor vision.

The word processor – with double size characters

While you are using the word processor three useful pieces of information are displayed across the top of the screen.

They tell you how much time has elapsed since you started using it, the number of words you have written so far, and how many characters you can key in before the computer's memory is full.

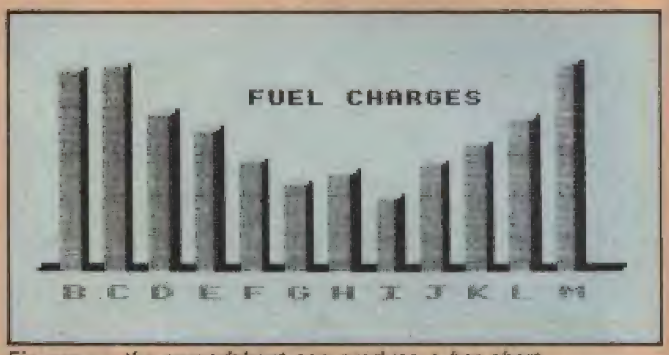
At any time you can press a key which tells you your typing speed. This is a most useful function, and can play an important part in increasing your efficiency at the keyboard.

You can also decide the size of the margin, the line length and the tab positions. Text can be moved from one part of the document to another.

At any time you can preview the text to see how it would look when printed out.

As with all the other programs in Mini Office, your work can easily be saved and loaded when you want to use it again. It can also be printed out.

The **Database** program can be used to store a mass of information. It can be retrieved, in its entirety or just the parts you require for a particular purpose, whenever you need it.



Figures on the spreadsheet can produce a bar chart . . .

The operation is so simple that a useful database can be created in minutes rather than days – and you certainly don't need any computer experience to set it up.

The powerful search facility is very easy to use. You can search for a particular word or words or you can order a numeric search – such as telling the computer to find all the numbers greater or less than the one you provide.

You can carry out multiple sorts. For instance, if you have built up a mailing list containing a list of names, addresses, telephone numbers, occupations and ages you can ask the database to provide you with a list of teachers living in Liverpool whose ages range from 25 to 30.

One powerful option allows you to replace anything on the database without having to go through the whole lot making amendments yourself. You could, for instance, instruct it

Now on the 48K Spectrum and Spectrum +

DATABASE SOFTWARE

to find each reference to "teacher" and replace it with "lecturer".

The **Spreadsheet** is our version of the program that marked a milestone in business computing – Visicalc.

It is often pointed out that this one program alone has helped to sell more personal computers than any other.

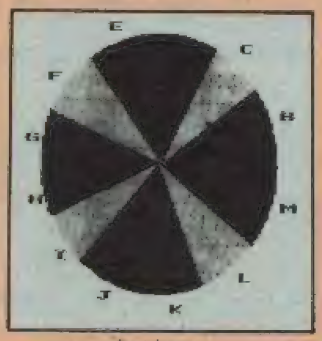
Certainly Visicalc and its derivitives have never been shaken from their position at the top of the list of best-selling business programs.

Yet the concept is very simple – a giant worksheet of rows and columns, only part of which can be seen on your screen at any one time. Into any position on the sheet you can put numbers, labels and mathematical formula.

And when you alter any figure its effect ripples through the rest of the sheet, changing any totals as may be necessary.

The Mini Office version is ideal for home finance, providing you with an effortless means of keeping tabs on your income and expenditure – and enabling you to work out your own budget.

In our Spreadsheet program – as well as in the Database – we have provided a sample file so that you can experiment with it before entering your own data.



. . . or a pie chart

One feature we have included which to our knowledge does not exist in any other spreadsheet is a warning device to prevent you accidentally erasing formula – a very useful precaution.

The **Graphics** program uses the standard business graphics – line, bar and pie charts – in full colour. Which is something not always available on far more expensive graphics packages.

The program uses data you have already prepared on the spreadsheet. You have to identify which set of information you require to see in graph form – such as by indicating which row or column – and then which of the graphs you require.

The graph is then automatically configured exactly as you require it. If you have suitable printer capable of producing graphics you can also print out hard copies for a permanent record.

Because our original intention was to produce a package for people new to all these applications, we have produced a fully-detailed, easy to understand manual.

This 32 page free booklet gives clear instructions about how to use all four programs and in itself forms a concise introduction for first-time users.

If you want to start doing more with your micro than just playing games, this package is your ideal introduction to the four most popular applications for professional computers.

● *Graphics illustrated here are from the Amstrad version and are slightly different on the Spectrum version.*

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CR 5

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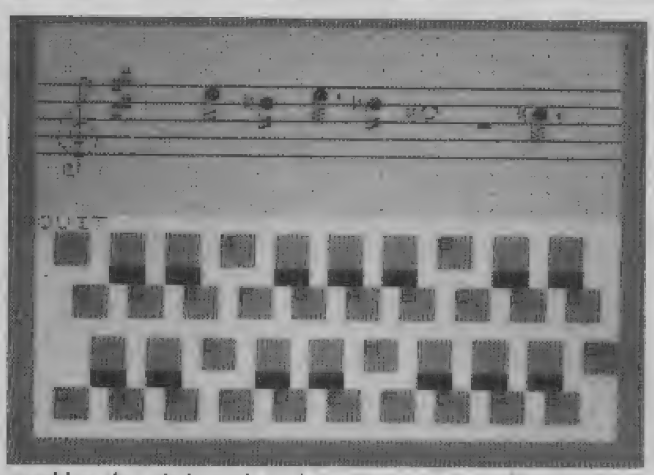
Xorsoft
Unit 7, Newington Street, Hull

£9.95



Both the demo section and the learning mode are well put together, and despite some misapprehensions about the graphics, the whole package is well ordered and comprehensive. the demo and keyboard/stave familiarisation games provide the user with a simple but good background to what he or she is about to do — and the range of options, including the facility to store a total of 2,500 events and up to 26 different tunes at any one time is truly impressive.

The editor is a true music processor, which allows you to edit tunes by scrolling to the left and right. Short sections of music can be written and then merged together to compile one long tune, and while the editor can be a bit difficult to get to grips with, it's well worth the effort, being very accurate and comprehensive.

The inlay instructions are straightforward and well set out, and given the sheer volume of facilities on offer, are bound to be complicated.

Overall, the biggest plus has to be the facility that allows you to use the Spectrum keyboard to emulate a two and a half octave keyboard. In the practice mode, you can play music merrily, and once the piece is perfect you can play it into memory in real time. Given that a tune memorised from the keyboard can then be edited or printed out, the program could be very useful as a real-time music printer/sequencer, not least for the untrained musician who can't score out his tunes played by ear.

This program was very accurate musically and while it would benefit from a keyboard overlay and a little graphical tidying up, it's well worth the effort required to get to know the complicated editing routines. *Spectune* would appeal to both the total musical novice and the competent musician equally — it's just a pity that the Spectrum isn't polyphonic!

FINAL VERDICT

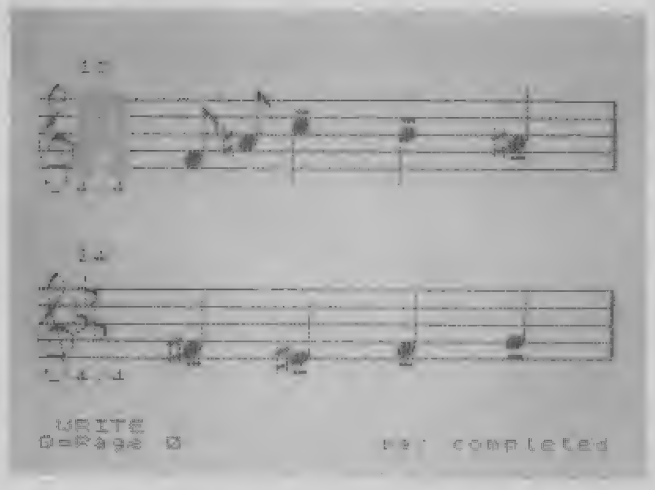
Graphics: 8/10 Room for some improvement, a little clumsy at times.
Userfriendliness: 7/10 Complicated at times, but worth getting to know.
Musicality: 9/10
Educational Value: 8/10

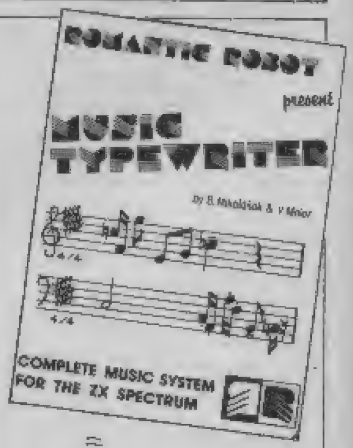
MUSIC TYPEWRITER

Romantic Robot
77 Dyne Road, London NW6

01 625 9463

£9.95





Music Typewriter is a very impressive and well thought out package which assumes a level of musical knowledge before you start — and the booklet that comes with the program points out that no attempt is made to explain musical theory in the manual or in the program.

The graphical representation of notes and staves is quite brilliant, putting to shame the displays generated not only by the other Spectrum programs we've taken a look at but bettering the offerings of most expensive professional music systems. A joy to look at indeed.

Musically it is the most accurate of the Spectrum software allowing the use of bass and treble clefs and it's the only program to allow staccato and legato phrasing — music can be written exactly how a musician would write it out to be played expressively.

Music Typewriter comes with a keyboard overlay which renders input both user and musician friendly. The program allows hard copy to be generated as well as providing a transposition facility, with all incidentals being adjusted automatically. Up to sixteen tunes can be stored in memory, which has a cataloguing facility and tunes may be repeated a discrete number of times or endlessly. Up to 254 bars of music may be stored at any one time.

Working from a three screen menu the program is well documented and has a well ordered editing and cataloguing facility. Interestingly, Romantic Robot can supply a version of the software to drive a sound generation chip or even a MIDI interface (More about them next issue). Sadly there isn't a real time sequencing facility as offered by *Spectune*, and a little niggle is caused by the continental notation used for the note 'B' which appears as 'H', which might just confuse a few people.

Overall a very respectable program, visually attractive which is simple to use and is bound to appeal to any musician. For a musical illiterate background reading would be vital — as the manual suggests — and the software would provide a useful visual illustration of the theoretical concepts.

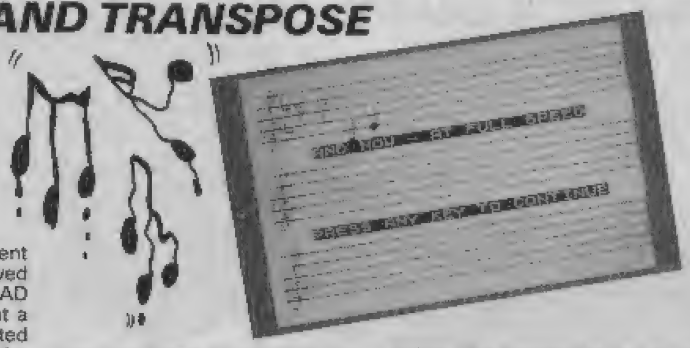
FINAL VERDICT

Graphics: 10/10 Eat your heart out Fairlight.
Musicality: 9/10 Incorporates expression.
Userfriendliness: 9/10 (but see educational value)
Educational Value: 2/10 not for the complete beginner: it is not intended as an educational program.

PLAY, TYPE AND TRANSPOSE

Hilton Computer Services
14 Avalon Rd,
Orpington

£9.00



This program is in a different league to all the others reviewed in this column. It is not a LOAD AND RUN FUN program, but a musical utility which has limited graphical presentation, lengthy and complicated documentation and is designed to be used by someone who has a fair knowledge of both music and programming.

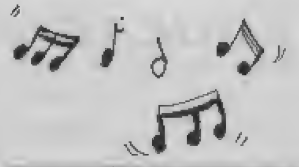
Notes are written to the 'play' program using BEEP statements, but putting in abbreviations for the standard names of musical notes rather than timings. A fair bit of pen and paper work is required before you start composing, and in many respects the program is a half way house for programmers who can't be bothered to work out the BEEP section of their Spectrum Manual.

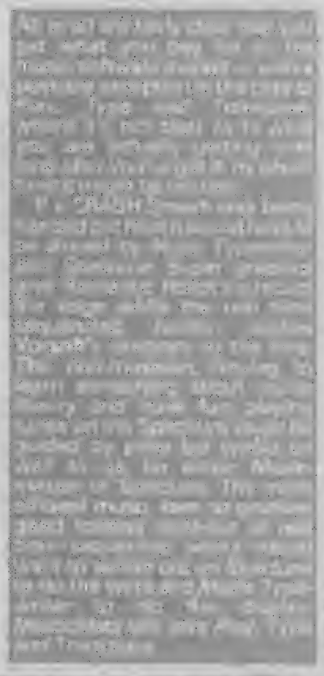
The type and transpose program allows you to type notes onto bass and treble staves and then transpose from one page to another. The music typewriter controls are more complicated than the average chinese typewriter and the end result is less than graphically stunning — although the transposition facility could be useful enough to a non-musician to justify the effort of getting there!

All in all a very complicated package, with a large explanatory manual which is less than straightforward. It could be worth the mental anguish necessary to get to grips with the programs but there's very little offered in the way of musical explanation and there's no way someone could work out how to input a piece of music without prior musical knowledge. The program is in a fairly primitive state, and has obviously been written by a dedicated hobbyist, well wrapped up the subject material. An oddity which could be easy to dismiss out of hand; it's hard to work out quite who this package would appeal to. When it was first written several years ago it would have been 'state of the art', but the art has advanced by leaps since, and left it far behind.

FINAL VERDICT

Graphics: 1/10
Musicality: 1/10
Userfriendliness: 0/10
Educational Value 1/10





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Educational Interlude

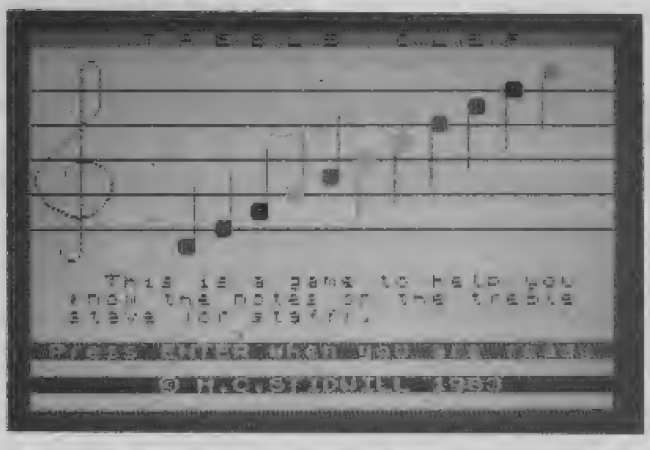
Why should Rosetta McLeod have all the fun? Three music education packages came our way during the course of the research for the feature, and so Jon Bates loaded them into a Spectrum and reviewed them with the assistance of his musically illiterate mate, Graeme, aged 28 and tone deaf!

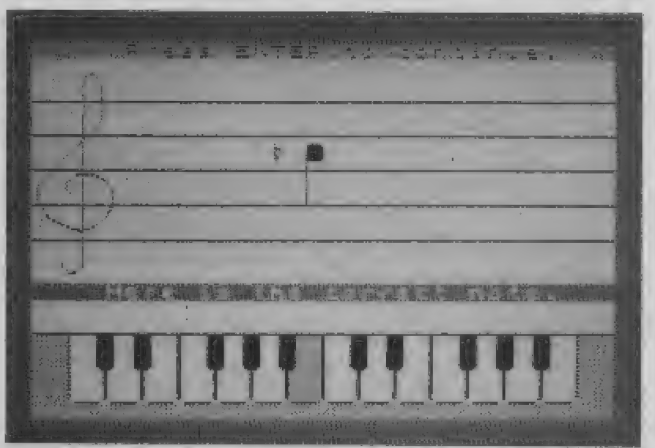
LEARNING TO READ MUSIC

Rose Software
148 Widney Lane,
Solihull, W Midlands

021 705 2895

£5.95





Somehow, the four games contained in this package, which are all quite easy, basic and short, while being musically sound and logical don't quite carry through. The games are not appealing in their own right and probably wouldn't stimulate a real interest in music from a casual look. I got the impression that they have been designed somewhere between education-for-it's-own-sake and games, and have fallen towards simplistic education at the expense of entertainment — they don't offer much in the way of reward for the correct answer and are rather schoolmasterish in approach.

Treble clef is a straightforward note recognition game, confined to the treble clef only as its name implies, which offers a permanently available help facility and colour codes the notes (this could have been carried over to other games in the package, forming a link but wasn't). Yes up to three people can play together, and yes they could learn to recognise notes on the treble clef — but what about the bass clef?

Scale position again uses the treble clef only, and was specifically designed to help grade 5 theory and as such would no doubt assist — but surely a sharp or flat default would have helped. A bit technical this one — obviously not much relevance to the novice. My assistant hadn't got a clue.

Note Values requires the user to enter notes or rests onto the stave displayed on the screen which build up into a sequence. A random time signature is chosen by the computer and the player will become familiar with the names of notes and their values. Unfortunately the whole stave moves to the left as the game progresses, and the novice could lose his or her position in the bar being assembled.

Keyboard is the final program in the package, and is intended to teach the beginner the relationships between notes on the keyboard and notes on the stave. The player uses the cursor keys to find the notes displayed on a keyboard at the base of the screen, and gets three attempts before being given the correct answer.

Without getting too technical, the logic is a bit out of order, in that flats and sharps on consecutive white notes on the keyboard could lead to severe confusion given the way the program presents them. A bit worthless for the beginner really.

The four programs in this package, taken separately don't follow through under the title of 'Read Music' If they had been linked together better, had been a lot more informative and most importantly more fun, the package could have been a good one.

FINAL VERDICT

Graphics: 2/10 Uninspiring, not much fun and it looked like some routines were transferred from one program to another rather inappropriately.
Musicality: 5/10 Half way there.
Userfriendliness: 4/10 'the player can get help and a score is given at the end', and that's yer lot.
Educational Value: 5/10 tries to cope with too wide a range of abilities in one package perhaps.

Firework Music & Water Music

Software Cottage
19 Westfield Drive, Loughborough

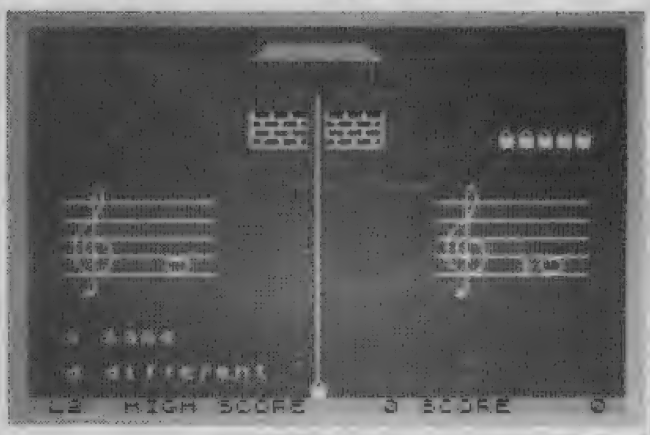
£6.95

Musically the four games contained in the two packages from Software Cottage are accurate and have been designed with children in mind, but proved to be appealing to my not too young assistant.

Firework Music is a charming little note naming game, in which you have to protect your box of fireworks against a descending spark by naming a note displayed on the screen's stave. A correct answer wins an extra firework, and the player is treated to a firework display after ten correct answers have been given

Water Music gives training in identifying sharps and flats, again displayed on either the Bass or Treble Clef. The player is encouraged to develop a familiarity with accidentals, playing against time as with *Firework Music*, only this time trying to raise a bucket in a well. The bucket slowly falls to the bottom of the screen as time passes, jumping up each time a correct response is given.

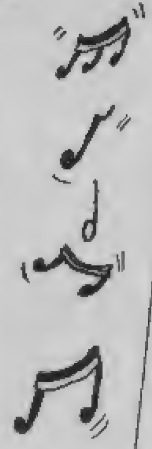
Both games have an optional 'lesson' at the start (without which my assistant couldn't have attempted them) and are designed for children in the 7-12 age range. All in, the help facilities are quite good and the graphical presentation was quite cheerful.

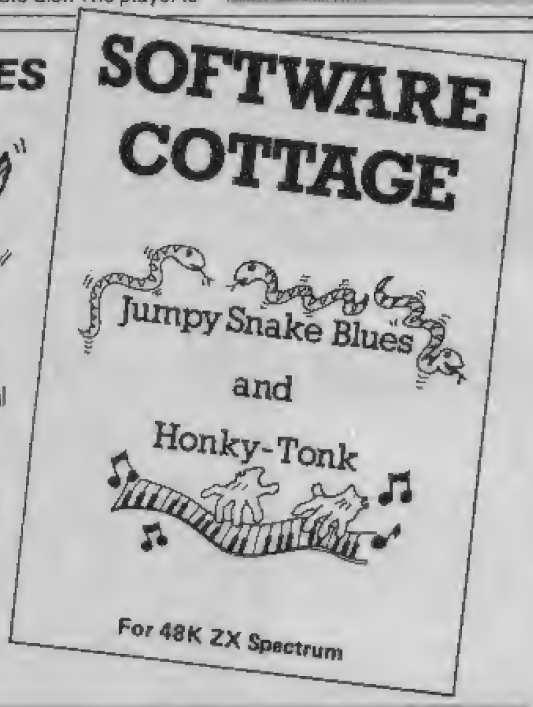


JUMPY SNAKE BLUES & HONKY TONK

Software Cottage

£6.95



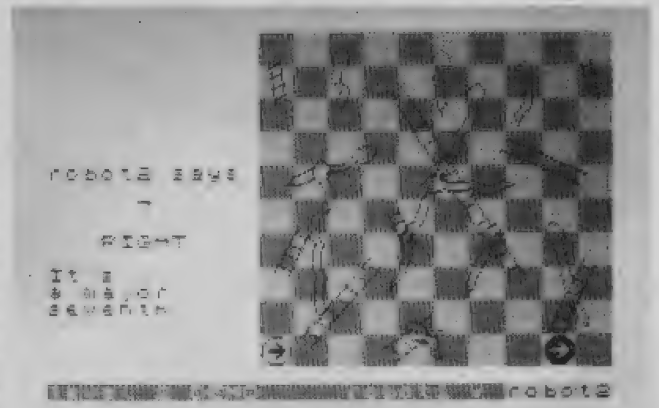


Jumpy Snake Blues is a musical game of snakes and ladders which helps to train the player's ear to recognise musical intervals. Again, a demonstration program heads up the game, and the player can play against the computer (which gets the answer right every time, allowing for practice between turns) or against a friend which introduces an element of competition. The computer plays two notes and the player(s) have to recognise the interval — the correct answer moves the player's counter on the snakes and ladders board forward by the interval just identified. The winner is the player who gets to the top of the board first.

Honky Tonk is a note matching game which helps develop the player's sense of pitch. A grand piano, perfectly in tune acts as a reference while the player tries to tune a honky tonk piano by moving the pitch of its notes up or down in small or large steps.

Each time the player refers to the grand piano for the correct note, ten points are knocked off the score so far, which starts at 1000. there are 4 levels to the game. At the lowest, where the honky tonk tunes up in quarter and semitones, even my assistant seemed to be able to cope passably well. At level four, where the steps are sixteenth and thirty-seconds of a tone, a very sharp sense of pitch is needed to achieve a high score.

When the player believes the honky tonk piano is in tune, the game ends and it plays a ragtime tune — going out of tune painfully if the honky tonk wasn't tuned perfectly. (Even Graeme winced at this loser's rendition of the tune)!



Overall there is definitely a place for the games in the classroom. They're easy to use, friendly but are perhaps a little repetetive on the graphics and visual stings offered up as rewards. *Jumpy Snake Blues* and *Honky Tonk* are aimed at anyone from 7 up who wants practice at training their ear and would be particularly useful to someone learning an instrument. *Jumpy Snake* would certainly help with Grade 5 or CSE Musical exams.

Firework and *Water Music* could easily have been tied in with a Handel tune to add that extra bit of gloss — I wonder why Software Cottage didn't take this step.They're an interesting way to teach the basics of music, and I liked the way they coped with leger lines on both the Bass and Treble Clefs.

The four games assume no musical knowledge at all and are quite fun to play as well as being instructional — though making a musician out of Graeme is probably beyond anyone's capabilities!

FINAL VERDICT

Graphics: 6/10 Cheerful, but a trifle repetitive methinks
Musicality: 8/10
Userfriendliness: 9/10
Educational Value: 7/10

Crash Competition

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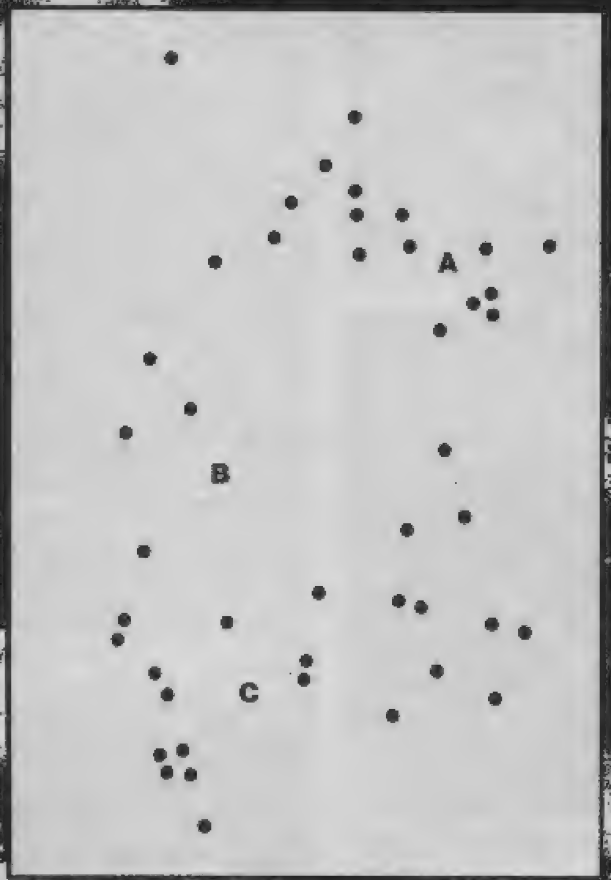

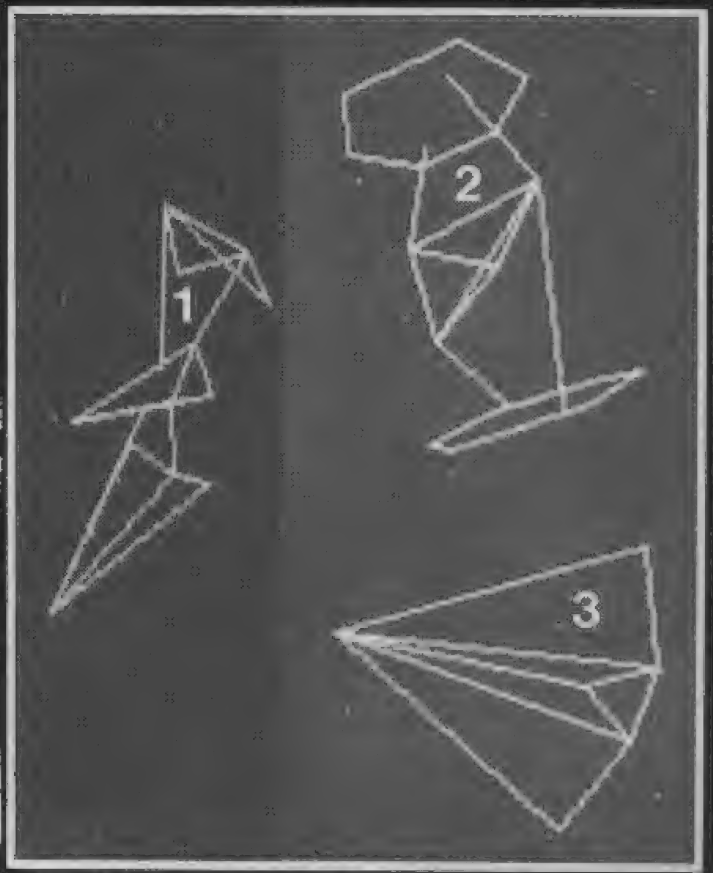

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+++++++CRASH READERS ASKED TO HELP REASSEMBLE PLANS FOR STARION SHIPS FROM BACK-OF-ENVELOPE DOT-TO-DOT CRYPTIC PLANS, DRAWN BY GAME INVENTOR AND LEFT ON BACK SEAT OF TAXI IN ERROR+++++++

++++++++MISERABLE CRASHLINGS ARE LAST HOPE FOR INTELLIGENT LIFE AS WE KNOW AND LOVE IT - CAN THEY COPE?++++++++

+++++++++MISSION COMPUTER NEEDS NETWORKS DRAWING UP FROM DOT-TO-DOT IMPLIMENTATION - FAX PHOTOS FROM PRE-RELEASE COPY OF GAME SENT DOWN LINE TO CRASH MAGAZINE EDITOR, LUDLOW, ENGLAND, SOLIII++++++++

++++++++READERS NEED TO COMPLETE DOT-TO-DOT DRAWINGS AND MATCH UP TO FAXED PHOTOS AND THEN SEND RESULT TO MISSION COMPUTER VIA CRUDE LETTERPOST METHOD TO PO BOX 10, LUDLOW, SHROPSHIRE POST CODATION SY8 1DB BY END MAY FOR BEAMING UP TO URSULA MAJOR RECEIVING STATION++++++++

++++++++IF MORE THAN ONE HUNDRED CORRECT ENTRIES RECEIVED BY COLLATING COMPUTER, THEN RANDOM SORT AND SELECT ALGORITHM WILL BE APPLIED TO DETERMINE ONE HUNDRED WINNERS OF MELBOURNE HOUSE GAME - BELIEVED TO BE ASSIGNED MYSTICAL "CRASH SMASH" TOKEN OF EARTHLING GRATITUDE FOR BEING DEAD BRILL++++++++

IntergalactiGram
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Date

******MASTER COMPUTER INTERRUPT ON SLAVE TELEX COMPUTER INTERRUPT BUS******

**********WHAT'S THIS "DEAD BRILL" GIBBERISH, OH MINION MACHINE?**********

++++++++SORRY BOSS, SLIPPING INTO COARSE EARTHLING USAGE OF META-LANGUAGE CONSTRUCTION++++++++

********SHUT DOWN MINION TELEX COMPUTER - YOU'VE BEEN AT THE THESAURUS AGAIN!********

******MESSAGE TERMINATED EARTHLINGS - APOLOGIES FOR TRANSMISSION ERRORS - GET BUSY ON THIS BRILL :@&3%!)](.....brekadown eroor rpart**brokdurn errire repa...eakbrown terror part

Line disconnected by Intergalactic Telecom owing to non payment of the last millenium's telelaser bill.

KERRASH! N·E·W·S

BODYWORKS LAUNCH

Where the assembled throng finds that Minson's Body doesn't

Lots of fitting coincidences in that *Bodyworks* is the first program from Genesis. It could also be the first coffee table program; certainly they'd invited journalists from every sort of publication imaginable (even Reader's Digest) to the launch party. There, amidst the throng, was Dr Jonathan Miller, media-personality and one of the devisers of the program — which might be seen as the computer equivalent of his highly popular pop-up biology books.

At £14.95, complete with book and wall-chart, the package is a seven part, fun introduction to the workings of the human body. It culminates in a marathon sequence, in which the user tries to run the fastest race possible while monitoring the screen athlete's status — a sort of Track and Field with blood and guts. Perhaps the representatives of the computer press felt slighted by having to mix with so many other hacks — and they immediately induced a heart attack in their little runner.

Meanwhile I quizzed some representatives of the medical world who thought *Bodyworks* most suitable for pre-O Level students. Then all that remained was to conduct an experiment of my own, concerning the sudden intake of as many Bucks Fizzes as I could before my own body got to work, demonstrating that what goes down, all too easily comes back up! *(Please, not another Angus Ryall correspondent . . . what's the CRASH Christmas party going to be like?—Ed).*

John Minson

Keep Taking the Pills

Argus Specialist Publications, (the people behind many computer titles), seem to have been having a bit of bad luck with their Exclusive-peppered trade comic, *Computer and Software Retailing* of late.

In the last two issues they have named Firebird's latest Gold Range release as 'Cyron' (sic), and attributed the programming on Micromega's latest release *A Day in the Life*, to our very own Derek Brewster. This, despite their representative attending the launch, it seems, and the fact that full-page ads have been taken in other computer magazines which clearly state that Stephen Redman is the author.

In a news piece about their sister company's release *Give my Regards to Broad Street*, the CSR team witter on about Paul McCartney signing albums as prizes for competitions in the consumer press, and apparently haven't got the bottle to mention CRASH and ZZAP! 64 by name — and then go on to quote Game Lord Peter Holme from Argus Press Software as saying the game has been met with a *'phenomenol'* (sic) reaction. As opposed to a paracetemol reaction, one presumes, just who's got the headache then or is Holmesy a closet chemist?

WHITE MAGIC ON LBC RADIO

The transmission of software programs on the air waves has been growing in popularity of late, although this has mostly occurred on television. But the London Broadcasting Company (LBC) has a regular Sunday slot which is reaching more people as they turn on to the idea and recognise that it's there. We don't know whether to call **Clive Ball** (who fronts the show) a DJ (*disk* jockey?) or a tape cassette jockey, but Clive is pleased at the reaction they are receiving from listeners in the LBC area (Greater London).

CRASH readers in London will hear an item of interest on Sunday 5th May, when Clive will be talking about New Generation's graphic utility *WHITE MAGIC*, and transmitting a piece of the program over the air. So you will be able to sit with CRASH on knee, open to the Tech Niche pages containing the *White Magic* review and compare notes with Clive, as well as receive a test piece of program to evaluate.

Oopsie-woopsie, done it again! Pacific Software write to point out that Derek's review of their game Funhouse included the incorrect price. Funhouse sells for £3.99, not £5.95 as we said in the April issue. Contact Pacific on Runcorn 61954 if you like.

A DAY IN THE LIFE

And Mr Minson drinks again!

Happily, I was unaware that *A Day In The Life* was going to get a somewhat less than enthusiastic review in the pages of this magazine when I attended the launch. However, Micromega's declared intention to move away from the 'black leather' space and bike products helps explain its 'bright and breezy' style.

The mystery tour that preceded the launch kept to the commuting theme of the game by being conducted on a London Transport bus — Micromega turned down the idea of using a fleet of C5's!

The tour ended at the London Transport Museum, where I chatted with author, **Stephen Redman**, who is a CRASH devotee

like his younger brother, Stephen, a final year computer science student at Newcastle University, took eighteen months to write the game which was his first major machine code project. He sees its central feature as the cunning sprite handling techniques.

Denying that they fear for the wrath of Cambridge's pugilist inventor, Micromega also used the occasion to confirm their dedication to irregular releases of quality games at £6.95. They do, however, have a budget three-pack of *Codename Mat*, *Kentilla* and *Jasper*, all written by our very own Derek Brewster and available for £9.95.

John Minson

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SOFTWARE
WE'VE DESIGNED AN ADVENTURE AND DESTROYED THE TEXT!
SHADOWFIRE USES PICTURES NOT WORDS TO ISSUE COMMANDS
SHADOWFIRE
COMING SOON FOR SPECTRUM 48K AND COMMODORE 64

N·E·W·S I·N·P·U·T·

Exhibiting Frey

TV lights and a dash of glamour came to the CRASH offices yet again the other day. Central TV sent their camera crew to Ludlow to film the opening of Oliver Frey's exhibition at the Silk Top Hat Gallery. The exhibition will have closed by the time you read this, but any unsold pieces of artwork will no doubt be for sale on a private treaty basis, all proceeds going to Oli's Martini fund — so don't be shy and give Oli a bell!

GOING GOLD

A couple more games have recently passed the 100,000 sales mark. **Addictive** broke the barrier with Kevin Toms' *Football Manager*, after three years in the Software League. **Firebird**, rather more quickly, cracked the problem with their Budget game *Booty*. There's some sort of moral in there somewhere, but we're not quite sure what.

THE SOFT MOLE

We're not desperate for news to fill these pages, so won't mention the pre-launch publicity (freely available at the LET Show in February) which a few magazines have recently picked up on. Something to do with the launch of an Adrian Mole adventure due out in the Autumn. It's not Spring yet, in Ludlow!

CRASH MICRONET MAILBOX

Following the demise of Prism, the VTX5000 modem which is ideal for connecting your Spectrum up to Micronet, is currently available in some shops for under £50 — or direct from Modem House in Devon (0392 69295). A few shops may still be selling it at the slightly higher price of £99-odd, so look around before buying.

Existing micronet users might like to know that the CRASH mailbox number should be active by now: try 105845851. Drop us an electronic line folks.

More details about Micronet are scheduled for Tech Niche quite soon. . . .

MICRONET 800 (C)

FEATU

Fabulous features a

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PAMPERED SPECTRUM

Robert Reiff must have the most pampered Spectrum in the land. He's built this wonderful bedroom for it to live in, which is complete with electronically controlled curtains, quadrophonic stereo (a little excessive for BEEP commands, surely), built-in tea, coffee and video machines and a pop-up toaster.

Robert, a London estate agent, spent four years constructing this amazing boudoir in which he cossets his Speccy . . . can any of you beat that? Then send us a picture of your specially-treated Spectrum and its pampered peripherals to beat this one? There's probably a T-shirt or two in it. . . .

A FULLER TALE

The tale surrounding the collapse of Fuller Keyboards — the two companies involved being Fuller Designs and Fuller Micro Systems — gets more complicated by the day.

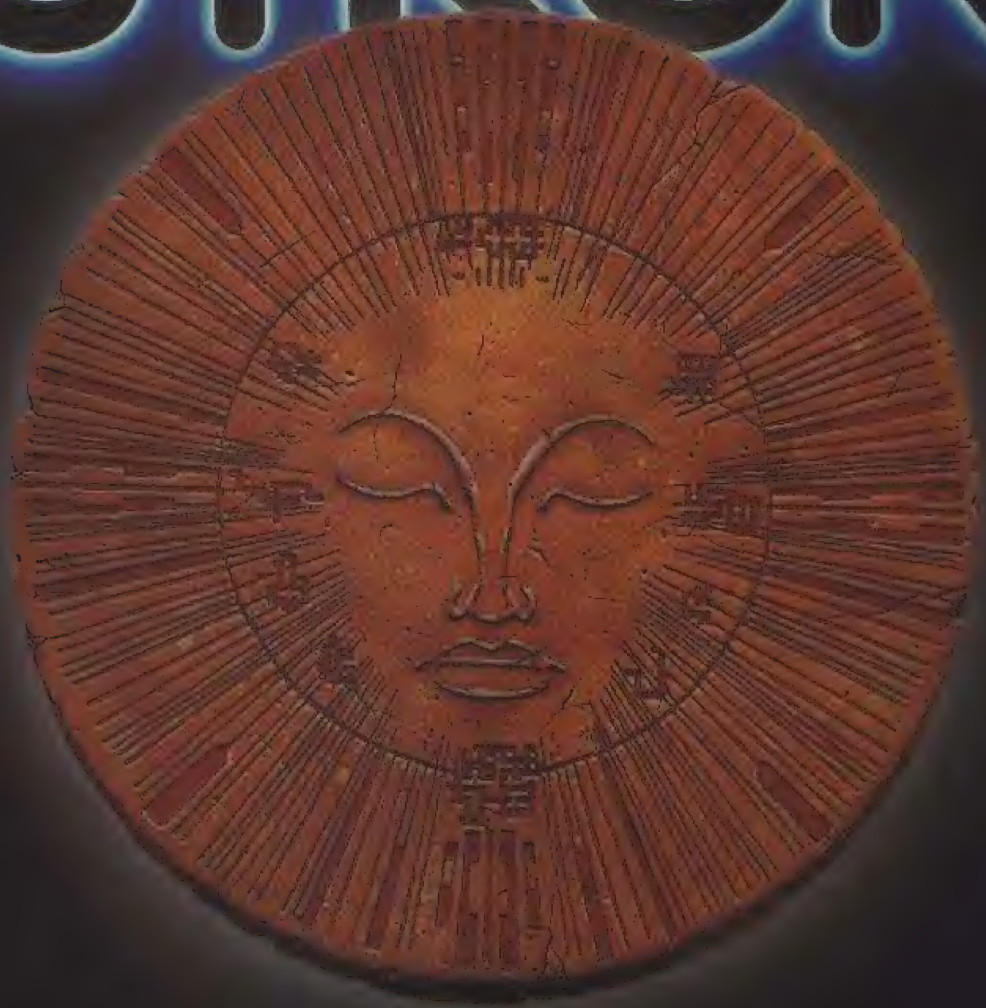
Nordic Keyboards have taken over the product, and are alive and well up on Merseyside, proud to be able to supply and service the FDS keyboards which were first brought to light due to the efforts of Mr Roy Backhouse.

Acrimony still surrounds the collapse of the two Fuller companies — which went down owing around £200,000, which included deposits lost by nearly 350 individual mail order customers. A nasty business all round, with the liquidators, Thornton Baker apparently issuing a writ for non-payment for goods received by Mr Backhouse, who purchased £3,000 worth of components and equipment on credit, following the collapse of the two Fuller companies named above.

WIN A
PORSCHE 924
(or cash equivalent)
see pack for details

·TAKE THE CHALLENGE·

GYRON



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ULTIMATE
PLAY THE GAME
PRESENT
JOHN RICHARDSON
JETMAN
OUR HERO, THE PRANNIE JETMAN, HAS FATALY KILLED AN UMPHALUMP AND EATEN IT, AND RECOVERED THE EYE OF OKTUP, AND NOW A MONSTER IS GONNA EAT HIM, AND OKTUP WANTS HIS EYE BACK BECAUSE IT CAN SEE INTO THE FUTURE AND BECAUSE HIS MUM WILL HAVE A FIT IF HE LOST IT!
UMPHALUMPBURGERS ARE ACE!
BOIP!
LOONYBURGERS ALSO!
I'M GONNA GET MY EYE BACK!
I THINK I'LL SEE WHAT'S ON THIS VIDEO PLAYER THAT I PLUCKED FROM OKTUP!
JAWS AT MAXIMUM GAPE! TONGUE OUT OF WAY! TASTE-BUDS AKIMBO...
THAT'S MY EYE! BWA!
BUM
WHA..?
WO..?
WHA..?
WHA..?
WOW!
HE'S LOOKING INTO THE FUTURE AGAIN, AN' HE STILL THINKS HE'S WATCHING A MOVIE!
WOW! I'M NOT GOIN' TO WATCH THAT AGAIN, UNTIL I FIND OUT WHERE AT THE "BRIGHTNESS" CONTROL! WOW!
EVERY TIME... EVERY TIME...
I JUS' GONNA BITE HIM AND "BUMF"! ...EVERY TIME!
BWA
HAVE YOU TRIED SHADES?
FMEE-BEEP!
BUT ENOUGH OF THIS FOMTOOLERY! I MUST AWAY AND SEEK A PASSAGE HOME TO EARTH! HAH!
HMMH
I WANT 'EM BACK LATER, MIND!
YUK OW!
YO CLUMDY HOAF
ARGH!
LOOKIT! NOW IT'S TRYING TO WRECK OUR DOOHICKY!
ARGH
ARGH
ARGH
ARGH
ARGH
ARGH
ARGH
HAH!
HOW!
HIM AN' THE DOOHICKY HAVE FALLEN IN YON DITCH! I HOPE HE DIDN'T GET TOO DIRTY! I WON'T HAVE MY FOOD CONTAMINATED, Y'KNOW!
I HOPE HE DIDN'T GET ANYTHING IN MY EYE!
HO!
I FINK I IS BUST!
YAS!
BUT.... OUR HERO.... ENTOMBED IN AN ALIEN DOOHICKY... KNOWS JUST WHAT TO DO...
I WANNA GO HOME!!
KLIK
WHR...
WOOOOZ
WOW! MY LUNCH JUS' TOOK OFF!... I IS DEVASTATED!
...ALSO HONGRY!
MY EYE! MY EYE! I GOT BACK MY EYE!
JOY
WONDER WHAT AN OKTUP TASTES LIKE?
WHA..
HAPPEE HAPPEE
PLIP
BUMF
WHA..?
WHO..?
WHEE..?
STILL WORKS
EVERY TIME!
EVERY TIME!
OH, NO! THE EYE TELLS ME THAT THE LOONY WILL RETURN... AN' HE WON'T BE ALONE!
BWA!

PLAYING TIPS

from ROBIN CANDY

It seems that a lot of people have been having trouble entering the pokes for Hyperload games despite their being correctly printed in last month's issue (please take note Mrs A. Martyn of Burgess Hill of what is to follow). First of all enter the false header included with each set of hyperload pokes, but before running it check that you have got ALL the data statements right. RUN your header so that it saves to tape. Where it says to 'fast forward your tape to just past the header signal', fast forward your tape to just past the tone that prints up the name of your program that you are loading and no further. This can be done quite easily by listening carefully to the tape as it plays back. Now load the false header created earlier back into the computer and the name of your program should appear. After the header has loaded the computer will display the red and blue border indicating that the computer is waiting for something else to be loaded in. Now play the tape that is to be poked from the place you stopped it (just past the header signal). The Spectrum should now load the BASIC bit of the Spectrum that is used to load the hyper code and run it and come back with the OK message.

As most Hyperloads are different from each other they each need a different approach to bypassing them; some, after breaking into them, just need a few pokes to provide you with infinite lives, eg *Pyjamarama* and *Alien 8*, while others may not use the false header approach at all and you may have to enter a series of short programs. When you have entered the programs always check that you have checked your Data statements correctly (this is where most people go wrong) before actually running the program.

Another mistake that crops up a lot is when it says to NEW the program that you have just so painstakingly entered. Many people ask what is the point of doing that when all it does is get rid of your program. The fact is that NEW gets rid of all program lines but it doesn't perform a total systems reset like PRINT USR 0 does or when you turn off your machine. So when you see NEW enter that but not PRINT USR 0 and certainly don't switch your machine off. If all else fails and you still can't get the program working try and contact me (preferably by writing) to see if there was a misprint.

After the really interesting stuff, it's time to get on to the boring bits — the real tips. . . .

AVALON

For anyone still having problems with *Avalon* here are some tips which should help anyone. The only level for which they don't give any help is the High Temple of Chaos. These tips were smuggled to me by Andrew Hewson of Hewson Consultants. Perhaps next month might see a few more tips for *Dragontorc*.

GATEHOUSE LEVEL
Items to collect:
Four spell scrolls, Servant ring and a key
Items for you to interact with:
An unlocked chest — use the servant spell to open the chest and remove a spell scroll. A locked chest — use the servant to take the key to the chest to get the money. When you have got the money go back to the first room and wait for the warlock to appear and give him the money. In return he will give you a star. Place the star on top of the star in the second room this will produce an unlimited energy resource. There is a second locked chest with a wraith guarding it: freeze the wraith with the freeze spell and unlock the chest using the servant and the key. Inside the chest is another key, collect this. This unlocks the door in the same room, behind the door is a tunnel leading to the wayroom.

MINES OF MADNESS
Items to collect:
Four spells immediately, one under a stone and two more behind locked doors.
Items to interact with
Lead a goblin to the blue spider. The goblin will then kill the spider leaving a jewel behind. Exchange the jewel with the floating warlock in return for a valuable item. Using the servant spell take the yellow lever and move a nearby boulder to obtain an open spell. Use the open spell to open the two locked doors — behind one there is a summon spell in a puddle and behind the other is another spell.

CAVERNS OF DOOM
Items to collect:
Five spells, a hammer and a key in a bottle.
Items to interact with:
Take the key from the bottle and use it to open a chest. Inside the chest is some money, trade this with a floating warlock. Attack the goblins that are guarding some magic mushrooms with the missile spell, the mushrooms are a valuble energy source. Beware of the contents of a nearby bottle! Take the hammer a smash the chest nearby to obtain another key. This key opens two doors which allow a short cut back to the wayroom and allows access to the Great Halls of the Deep.

GREAT HALLS OF THE DEEP
Items for you to collect:
Four spells, a lever, some rubbish and a chest. A piece of cheese and a key on a string. A bone.
Items to interact with:
Use the dispel spell on the bone to turn it into a key. Unlock the two adjacent rooms to obtain more spells and an energy source. Use the lever to move the rubbish nearby to obtain the key to the chest. With the piece of cheese attract the mouse out of its mouse hole to gnaw through a piece of rope tying the key.

GOBLIN WARREN
Items to collect:
The chalice spell, a key in a skeleton and four spells.
Items to interact with:
Take the key from the skeleton and unlock the chest. Inside the chest is a key which can be used to open another chest. Use the dispel spell on the stationary wraith. Use the open spell to open locked doors, collect the reveal spell and use it in the room beyond to obtain the chalice. Entice the goblins to the spider so that he eats them.

LABYRINTH
Items to collect:
The Lady and Caliburn, the sabre, the bat and the station of air plus several spells.
Items to interact with:
Lift the slabs to obtain two parts of the keys to the chests. Collect the sabre and use it to slay the bat to obtain the station of air. Then travel in the direction the lady is looking and slay the scorpion to obtain caliburn.

CATACOMBS
Items to collect:
The amulet for evermore, oil, two keys, the tunnel back to the wayroom.
Items to interact with:
An energy source and energy sink both guarded by wraiths. Use the oil to lubricate the locks. Find the key to the amulet hidden in the skulls.

CHAMBER OF CHAOS
This is accessible from the labyrinth or by using the summon spell.
Items to collect:
The dancing sabre, the stations of earth, fire and water, the key, the altar and the chest.
Items to interact with:
Take the key from the skulls and unlock the chest. Inside the chest is a coin, take this and place it on the altar to obtain the key to the locked door. Collect the three stations and the station of air from the labyrinth and place each in turn on the compass. Pass through the portal to the High Temple Of Chaos!!

PLAYING TIPS

BRIAN'S BLOODAXED

Here is the first major set of primarily imbalanced tips for *Brian Bloodaxe* by The Edge as sent in by Vincent Gratrick of Lincoln. Although he has completed, he was told to go and search for another object if to win the prize. Any one seen a Holy Grail lying around anywhere?

First of all you get the red key from the screen on the right to where you start. Next go and find the bomb and detonator. Go down off that screen and go right on to the screen with the green key. Put the bomb on the ground above the key, set the detonator and blow it up. Now go and get the green key. Go left and you should end up in the mines. Go right and get the bomb leaving the red key behind; go back (left) and up the space in the roof in this room. Now here's a tricky bit — when the shark comes towards you jump on its back and get to safe ground. Now get the gold key and go through the gap in the roof. Plant the bomb close to the sword and when it comes near blow it up.

The next part is to get off this screen and get onto the right hand side of the first screen. Put the detonator down and jump onto the bit in the middle. Go through the gap in the roof to the pool room and collect the triangle but leave everything else in this room. Go left then left again until you find a room with a blueish key in it. Get this and go back to the pool room (presumably a take off of the town Poole in Dorset) get the two other keys and go right onto the loo scene. Get the sword and pint of beer and attack the duck — you can use the beer to give you energy. Now go up and open the doors on the right with the keys you've got. Now go back from the screen you've just come from and get the other key, the sword and the beer. When you get to the screen with the throne take the plug out and go down. Here you will find a screen with a snowman, three doors and an elephant. Kill the snowman and go and open the door with all the keys you've got. Go over to the barrel and put an object near it, jump on the object. Now jump again while pressing the drop key but only if the elephant is below you. Now kill the elephant, go down the hole to the room with the crown jewels in it, collect them and go back to the room with the throne in it and you've done it.

TIR NA NOG

A couple of months back we printed how to get Nuada's sword in *Tir Na Nog*. Well thanks to S Coulthrust from somewhere in the world (no address attached) we now know how to get the other three pieces of the seal; but does anyone know how to reunite them and thus finish the game?

DAGDA'S CAULDRON
First get the Daisy near the waterfall in Glasmarsh. Now go to the Sliga Warrens. Using the map published in issue 14 go to the invisible door in the Sliga Warrens — this is the back door to Ceardach Calum, you can now go and pick up the cauldron without having to go past Nathair and get killed. When you've got the cauldron go back out of Ceardach Calum by the way you came in. Take the cauldron back to the altar of the seal.

THE STONE OF FAL
Get the book from the water cave and then go to the ice cave and get the ice. Now go to the cave marked Dormant Sligen on the map in the Sliga Warrens and pick up the sling. Now go to the tunnel marked 12, go through it and you are now in An Lin. Go west then take the second turning to the north, then the first turning to the west, then the first turning to the north, go east then north and you are in a dead end. Pick up the Halbeard. Go to Sgorr Brag and drop the Halbeard. You will now receive the Stone of Fal in return.

LUGH'S SPEAR
Pick up the ring in the Lava Flats then go to the cave marked with an *o (ring)* symbol (next to cave 7 on the map). Enter this cave and pick up the antlers. Now go to the Forest of Cern, pick up the pin and go to the cave of Cernos the Hunter. Drop the antlers and he will give you a harp in return, take this. You are now able to walk through the Sidhe without dying (this only works with the Sidhe in the forest). Follow the Sidhe and he will lead you through an invisible door (but you must have the pin to open the door) and at the end of the tunnel there is Lugh's spear.

DRAGONTORC

Continuing on from last month's tips here are a couple more if you are still stumped.

Presuming that you have got out of the Vaults of Loorn and are now in Weirdhenge, use the Leyrod spell to reveal keycubes in the henge. These cubes take you to different locations in the game. Follow the route of the yellow cube, this should take you to the area of the blasted forest. Now use the leyrod in the henge of this area and again take the route via the yellow cube which will take you to Webwood. Make sure you have got Merlyn's seal when in this area. Next month there will be a couple more tips to help you from here, presuming that you haven't already worked it out for yourselves.

PYJAMARAMA POKES

Okay! Okay! I know this game is a bit old hat now and that most of you smart Alec readers have completed the game with 100% anyway, but you had better be grateful for these because *Pyjamarama* is a Hyperload and is therefore harder to get round and harder to find pokes for than the normal hackable loader. Again Mr Keith Walker of Birmingham has come up with the goods (he's the bloke behind last month's *Alien 8* pokes) and now as well as being able to complete the game you can now do it in style, ie with INFINTE LIVES!

First of all enter this false header and save it to tape when it prompts you to — by now you should all be getting used to making and using false headers.

```
5 REM PYJAMARAMA HEADER
10 FOR N = 30000 TO 30028
20 READ A: POKE N,A: NEXT N
30 PRINT "START RECORDING AND PRESS A KEY"
40 IF INKEY$ = "" THEN GOTO 40
50 RANDOMIZE USR 30000
60 DATA 221, 33, 60, 117, 17, 17, 0, 175, 205, 194, 4, 201
70 DATA 0, 80, 89, 74, 65, 77, 65, 82, 65, 77, 65, 216, 1, 0, 128, 191, 0
```

Now that is saved to tape listen to your *Pyjamarama* tape to just passed the header signal (that's the first sound that prints up the name of the game). Now load in your fake header and restart the *Pyjamarama* tape where you last stopped it (just passed the header signal). After a while the computer should come up with the OK message, now enter these following pokes as direct commands:

```
POKE 23967,236
POKE 24028,201
POKE 24204,62
POKE 24205,50
POKE 24206,50
POKE 24207,18
POKE 24208,190
POKE 24209,201
```

Now save the *Pyjamarama* basic as:

```
SAVE "PYJAMARAMA" LINE 10
```

Interface 1 users should enter CLS # and add 58 to all of the poke addresses. Now whenever you want infinte lives for *Pyjamarama* all you have to do is load the program you've just saved in place of *Pyjamarama*'s basic loader and it does the rest for you.

WIZARDS LAIR

These tips come from Craig Young of Falkirk and they give some vital tips for the playing of *Wizards Lair*.

When using the magic Tat (wells can be reached by typing in:

```
HAWLO
CAIVE
VAULT
LIAYR
DUNGN
CRYPT
```

The flashing cups that appear throughout the game give an extra life each and the flashing helmets give you limited protection from knights and the hoarded axe man. The crosses allow you through snakes that are the same colour as the cross.

To reach the deeper parts of the vault level you must do the following:

Go down into the next room from the well on the 5th, pick up the cross in the square by moving through the two small doors to the left of it and moving up and through the corner to the right. Then go down into the next room and move through one of the snakes to get the cross in there. Go back up and into the room on the left and again get the cross. This then lets you move through the snakes to the right of the square and allows you to explore the vault. All this must be done without losing a life. Beware the miniature rooms should you find them and make sure you have plenty keys etc to open the doors with.

Hidden doors may be found in between 6 nights in the pieces of a pole. There are also a few cabinets with doors in them. Also when entering a room keep your eyes open for monsters moving through walls — this is a sure sign of a secret door.

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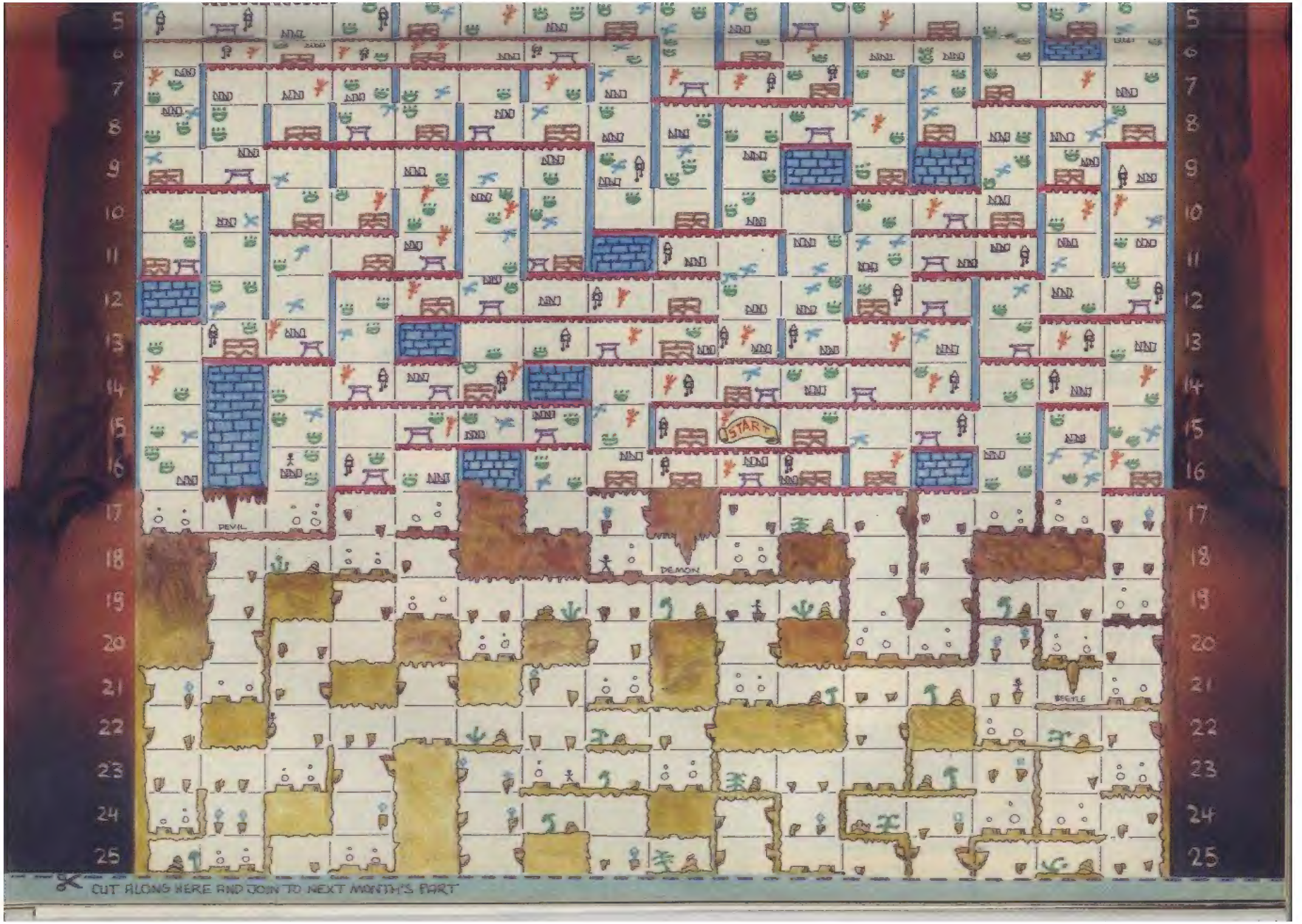
ULTIMATE
PLAY THE GAME

48K SINCLAIR ZX SPECTRUM

"ALIEN 8", "KNIGHTLORE", "UNDERWURLDE" and "SABRE WULF" recommended retail price £9.95 inc VAT. Available from W.H.SMITHS, BOOTS, J.MENZIES, WOOLWORTHS and all good software retail outlets. Also available from ULTIMATE PLAY THE GAME, The Green, Ashby-de-la-Zouch, Leicestershire LE6 5JU (P&P are included) Tel: 0530 411485

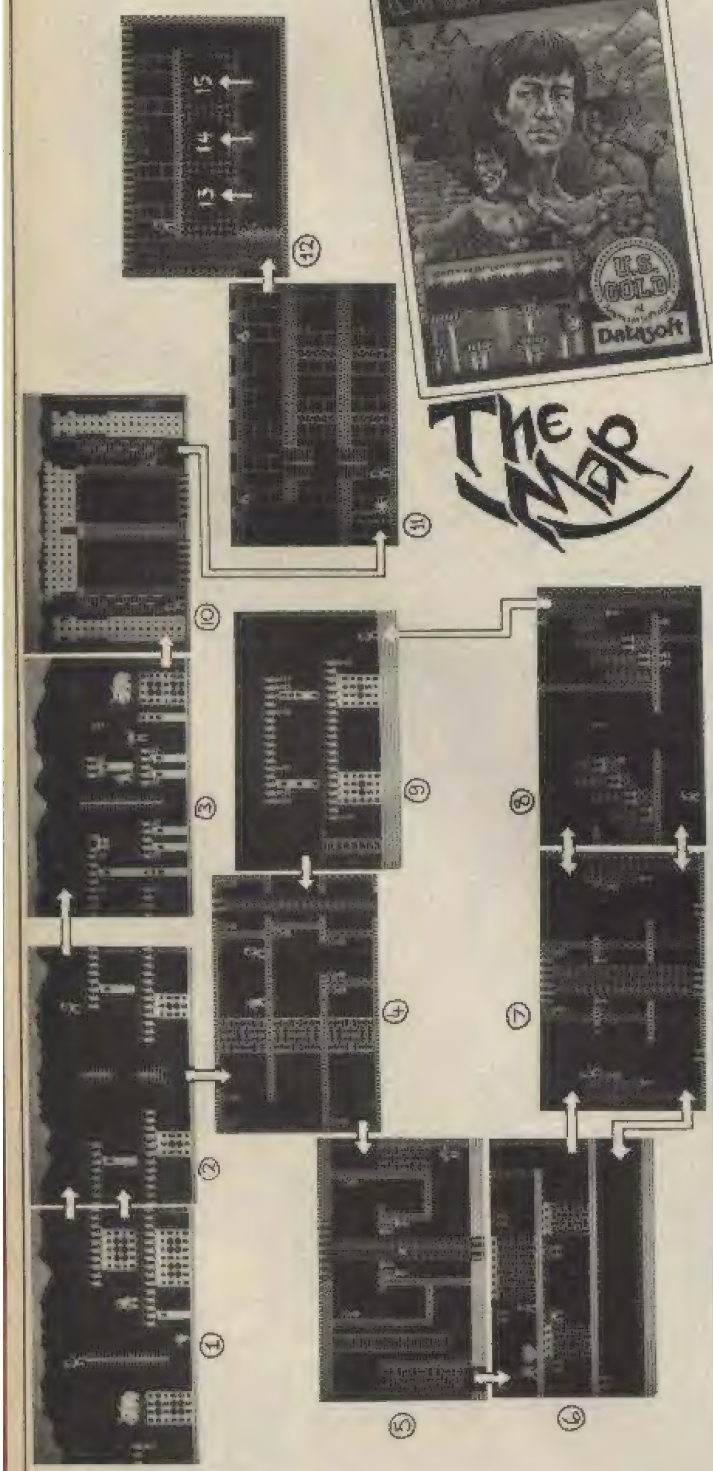
UNDERWURLDE

The Map


START
DEVIL
DEMON
BEETLE
CUT ALONG HERE AND JOIN TO NEXT MONTH'S PART

PLAYING TIPS

The Map



BRUCE LEE

As well as the map of *Bruce Lee* here are a couple of playing tips for this game as sent in by Toby Draper of Grays.

Always play a two-player game because you get more falls and so stand more chance of meeting the wizard. Set the menu options as follows:

A — 1 Player
B — Opponent
C — Whatever joystick you have or what ever keys you want to use
D — As C

This gives you control of the Green Yamo as well as Bruce Lee so all you now have to worry about are the Ninja.

THE MERGE PANEL

For newcomers to the Spectrum and CRASH who are having trouble entering pokes, just follow the procedure below for entering them unless otherwise stated.

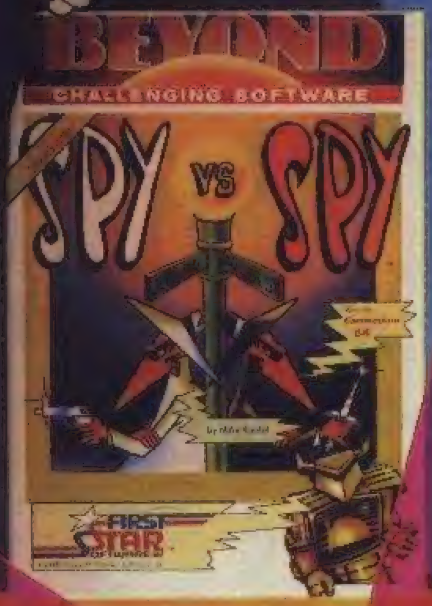
To insert your poke use the **MERGE** command (look in your manual on how to obtain it) followed by "", these are obtained by shifting **P** twice, now press ENTER. Press play on tape and wait for an **OK** message. When the **OK** message appears stop the tape and **LIST** the program (sometimes you have to change the **PAPER** colour to be able to read it — this is also detailed in your Spectrum manual). Move the cursor to the line with the last **RANDOMIZE USR** or **PRINT USR** number in it which is done by using **Caps Shift** with **6** or **7**. Now press **Caps Shift 1** to bring the line down from the program. Using **Caps** with keys **5** and **7** (depending on which direction you want the cursor to move) move the cursor to just before the **RAND USR** or **PRINT USR** number, type in your **POKE** followed by a **COLON** (:), press ENTER (the program line should now go back up to the program) then **RUN** the program. If you have any problems with the above procedures you should consult your Spectrum manual (or your local doctor).

80

BEYOND

CHALLENGING SOFTWARE

Now for Spectrum 48K and Commodore 64



NOMINATED FOR BRITISH MICRO COMPUTING AWARDS 1985

Spy vs Spy is two player cartoon fun! The black and white spies chase each other around the embassy. They steal secrets and plant traps, playing against each other on a split screen display.

Available from software dealers everywhere or direct from **Beyond** Competition House, Farndon Road, Market Harborough, Leicester LE16 9NR. Access/Barclaycard telephone: 0858 34567. **Price £9.95** inc. P&P

SABRE WULF

The Map

THE OBJECT OF YOUR QUEST
FIND THE FOUR PIECES
MAP BY GORDON DRUCE AND OLIVER FREY © 1985
END
START
WULF'S DOMAIN

WALLY TIPS

No sooner had I said we hadn't had many tips for Everyone's a Wally we were flooded with tips on how to get certain letters and perform certain tasks. These tips come from DM Turner of Solihull, W. Midlands.

To get the letter B

Change to Wilma and get book 1 and book 2.

Change book 1 at library at the first table for the Jump Leads and change book 2 at the library for the Bunsen Burner. Now get book 3 and exchange that at the library for the letter B and take it to the Bank Safe.

To get the letter K

With Dick mend the fountain as detailed on last month's Playing Tips section and build the wall which was also in last month's section. Now change to Harry and get the fuse wire and

TECHNICIAN TED

These tips come from Malcolm Collinge **of Poynton.**

After completing task 1 (Ted's Desk) drop down the whole in 'We call him sir' and make your way through 'The Cloakroom' back to the 'Silicon Slice Store'. You will notice after the first task that rooms change. Task 2 is the 'Silicon Slice Store' but extra sprites and platforms are added just to make it more difficult. After completing Task 2 go to the Boardroom, you have to jump over the large sprite of the lady's face. This is done by standing at the base of the ladder and then jumping twice vertically, until you are about three-quarters of the way up the ladder. Then jump across and you will find yourself in the 'Slice Diffusion Furnaces'. This is the next room in which you must complete a task. Jumping onto the green ledge is possible but you must be pixel-perfect otherwise it's splat!! Timing is critical because you only have about 15 seconds to touch the second flashing box and you've completed the 3rd task. Does anyone know any more tasks?

FINDERS KEEPERS

The Playing Tips pages are just about full so here is a quickie poke before I go, as sent in by Paul Hutchinson **(haven't we heard that name before?) of London. Just insert it in the basic loader before the RAND USR number and it gives infinite lives:**

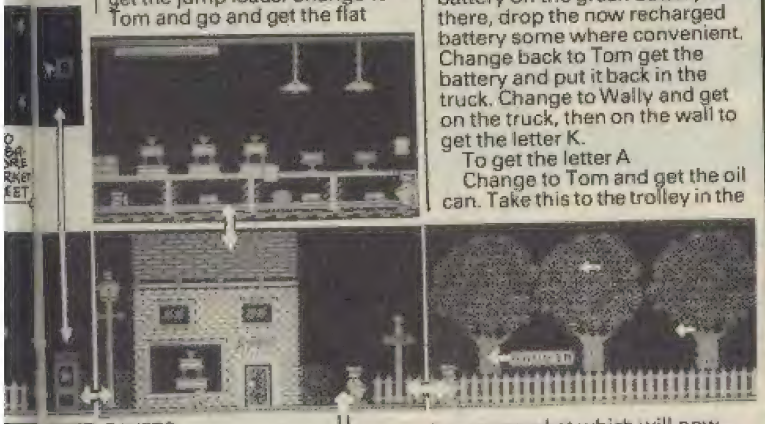
POKE 34252,0

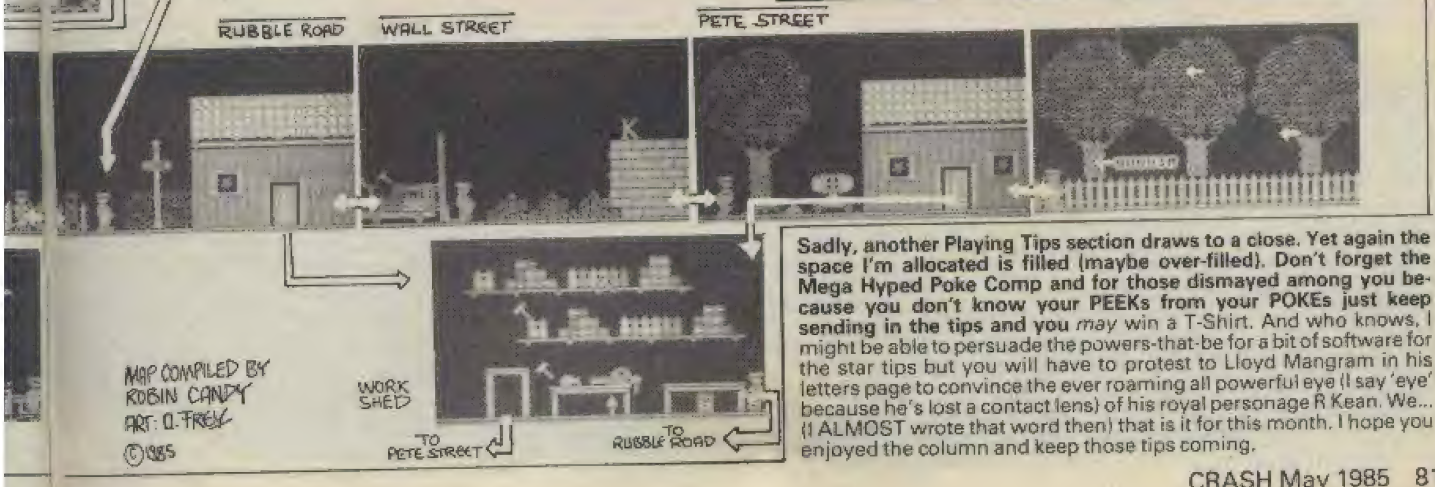
blown fuse this should rewire the fuse. Get the good insulator, get the screwdriver and go to one of the telephone boxes. Enter this and shoot the asteroids until you hear a beep, once you have heard this go to the screen with the pylon in it. You can now mend the pylon because the bolts of lightning move all the way around the screen. With Harry now go and get the jump leads. Change to Tom and go and get the flat battery from the fork lift truck. Drop the flat battery somewhere convenient. Change to Harry get the flat battery and with the jump leads go to the Bee Pee station and recharge the flat battery on the green battery in there, drop the now recharged battery some where convenient. Change back to Tom get the battery and put it back in the truck. Change to Wally and get on the truck, then on the wall to get the letter K.

To get the letter A

Change to Tom and get the oil can. Take this to the trolley in the supermarket which will now move around. Change to Harry, jump onto the trolley, then onto the freezer and get the letter A.

Well those tips should help all you Wallies out there, but who will be the first to complete this game?





Crash Competition

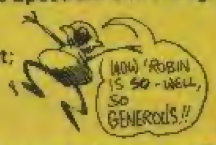
PURELY HYPE

Forget the three R's for a while, what I'm interested in is the three P's. PEEKing, POKEing and PRIZES. Yes folks, it's Prize Time in Playing Tips, and if you've got some useful POKES, boy have I got some prizes for you!

Let's start off with the ground rules: No more Jet Set Willy Pokes, OK. It's a Big RAND USR 0 on that one; and if you send in a POKE which has already been printed in these hallowed pages or in any of the other magazines, you get disqualified. And if they're printed in another magazine before the closing date, you also blow your chance of winning. We're looking for EXCLUSIVE Playing Tips here, OK?

So, get those hacking fingers walking through some program code, and send in your entries to the ROBIN CANDY POKE PRIZE to reach me before May 30th. On 1st June I'll sit down and judge the full range of entries and pick six winners. And here are the prizes on offer:

1st £50 of software of your choice for the Spectrum and a Mega Brill T-shirt;
2nd £25 of software and a Brill T-shirt;
3rd £25 of software and a Brill(ish) T-shirt;
4th Slightly Brill T-shirt;
5th Less Brill T-shirt;
6th Marginally less brill still T-shirt.



Well (I had to slip one in somewhere!), all the T-shirts are really the same, but I thought I'd slip a bit of variety into your life while you read the Prize List. They're all Mega Brill CRASH T shirts in fact. . . .

Entries to the usual address, PO BOX 10, LUDLOW, SHROPSHIRE, SY8 1DB

Sadly, another Playing Tips section draws to a close. Yet again the space I'm allocated is filled (maybe over-filled). Don't forget the Mega Hyped Poke Comp and for those dismayed among you because you don't know your PEEKs from your POKEs just keep sending in the tips and you *may* win a T-Shirt. And who knows, I might be able to persuade the powers-that-be for a bit of software for the star tips but you will have to protest to Lloyd Mangram in his letters page to convince the ever roaming all powerful eye (I say 'eye' because he's lost a contact lens) of his royal personage R Kean. We... (I ALMOST wrote that word then) that is it for this month. I hope you enjoyed the column and keep those tips coming.

HOTLINE TOP 30 FOR MAY

1	(1)	**KNIGHT LORE**	Ultimate
2	(29)	**ALIEN 8**	Ultimate
3	(3)	**UNDERWURLDE**	Ultimate
4	(—)	**EVERYONE'S A WALLY**	Mikro-Gen
5	(5)	**DOOMDARK'S REVENGE**	Beyond
6	(4)	**SKOOL DAZE**	Microsphere
7	(8)	**LORDS OF MIDNIGHT**	Beyond
8	(10)	**SABRE WULF**	Ultimate
9	(6)	**DALEY THOMPSON'S DECATHLON**	Ocean
10	(2)	**MATCH DAY**	Ocean
11	(14)	**MONTY MOLE**	Gremlin Graphics
12	(7)	**STARSTRIKE**	Realtime
13	(12)	**PYJAMARAMA**	Mikro-Gen
14	(—)	**DRAGONTORC**	Hewson Consultants
15	(13)	**MATCH POINT**	Psion
16	(15)	**TECHNICIAN TED**	Hewson Consultants
17	(—)	**BRIAN BLOODAXE**	The Edge
18	(20)	**TIR NA NOG**	Gargoyle Games
19	(—)	**RAID OVER MOSCOW**	US Gold
20	(11)	**AVALON**	Hewson Consultants
21	(22)	**BOOTY**	Firebird
22	(28)	**AMERICAN FOOTBALL**	Argus Press Software
23	(25)	**JET SET WILLY**	Software Projects
24	(17)	**BOULDER DASH**	Front Runner
25	(18)	**ATIC ATAC**	Ultimate
26	(28)	**GIFT FROM THE GODS**	Ocean
27	(19)	**DARKSTAR**	Design Design
28	(16)	**GHOSTBUSTERS**	Activision
29	(24)	**MANIC MINER**	Software Projects
30	(—)	**FULL THROTTLE**	Micromega

Ultimate have the hatrick this month with *Knight Lore*, *Alien 8* and *Underwurlde* at the top positions. But the big climber, in from nowhere at this month's number 4 slot is **Mikro-Gen**'s *Everyone's a Wally*, proving that it's Mr Week's month. Another big entry is *Dragontorc* from **Hewson**, following up hotly on the success of *Avalon* which is still hanging in there at 20. Two other new entries; *Brian Bloodaxe* from **The Edge**, in at number 17, and the big zapper from **US Gold**, *Raid Over Moscow*. Otherwise there are just some minor shuffles, with *Ghostbusters* sliding down 12 places.

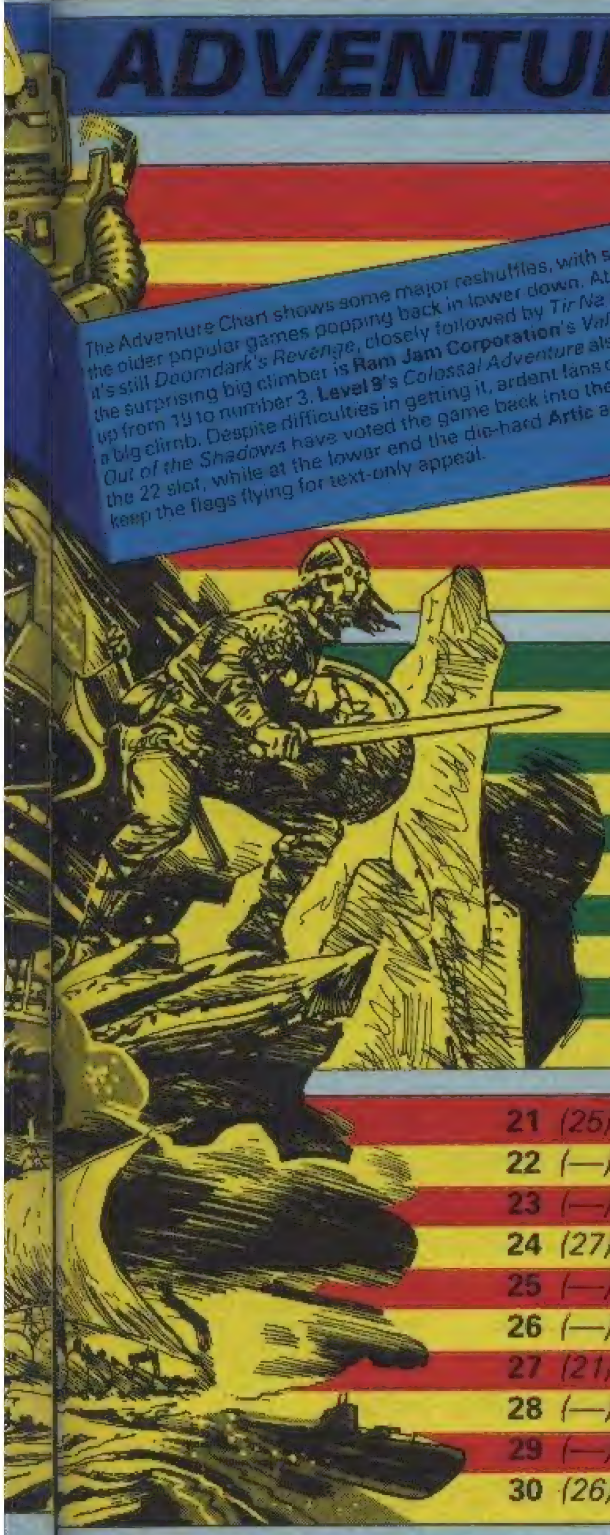
The winner of this month's Hotline draw is **Dominic Szewczyk**, Sheffield. The four runners-up are; **Ken Wise**, Wantage, Oxon; **Michael Burns**, Luton, Beds; **Adam Webb**, Coalville, Leicestershire; **Kwok Ming Liu**, West Mulesey.

BRILL 'N' FAB HOTLINE PRIZES!!

The CRASH HOTLINE & ADVENTURE CHART is Britain's most important popularity chart. It depends entirely on your support and we need your votes. There are two methods for voting, either use the CRASH HOTLINE PHONE-IN, or cut out the special coupons which you can find on page 138.

Whether you phone or write in, all the names go into the Hotline Bag to be drawn monthly. First out in both charts receives £40 WORTH OF SOFTWARE plus a CRASH T-SHIRT. The four runners-up in both charts each receive a CRASH T-SHIRT and THREE free issues of CRASH Magazine (a kind of mini-subscription — existing subscriptions will be appropriately extended).

ADVENTURE TOP 30 CHART

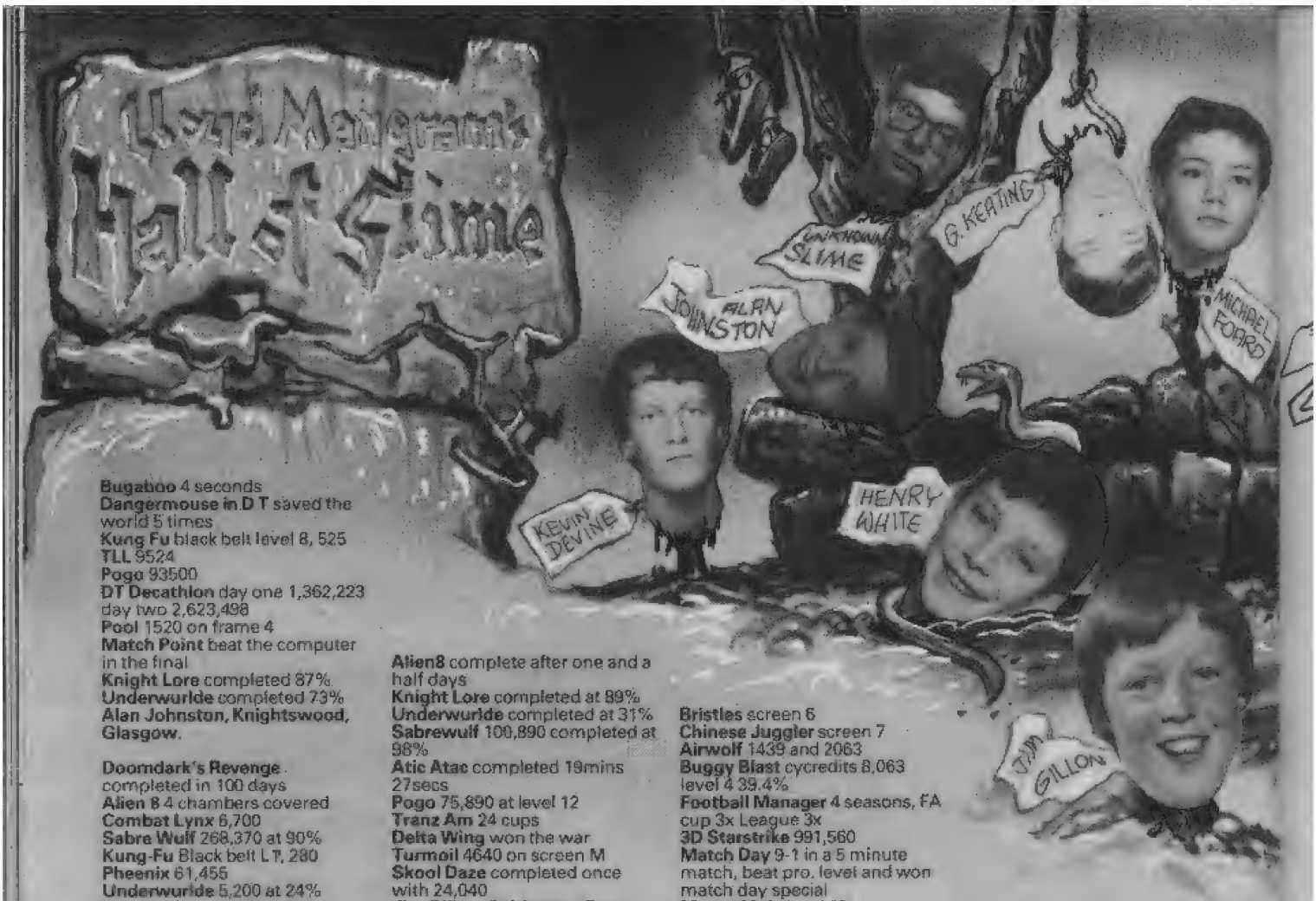


The Adventure Chart shows some major reshuffles, with some of the older popular games popping back in lower down. At the top it's still *Doomdark's Revenge*, closely followed by *Tir Na Nog* but the surprising big climber is **Ram Jam Corporation**'s *Valkyrie 17*, up from 19 to number 3. **Level 9**'s *Colossal Adventure* also makes a big climb. Despite difficulties in getting it, ardent fans of **Mizar**'s *Out of the Shadows* have voted the game back into the charts at the 22 slot, while at the lower end the die-hard **Artic** adventures keep the flags flying for text-only appeal.

1	(1)	**DOOMDARK'S REVENGE** Beyond
2	(2)	**TIR NA NOG** Gargoyle Games
3	(19)	**VALKYRIE 17** Ram Jam Corporation
4	(5)	**RETURN TO EDEN** Level 9
5	(7)	**KENTILLA** Micromega
6	(3)	**RUNES OF ZENDOS** Dorcas
7	(20)	**URBAN UPSTART** Richard Shepherd
8	(9)	**TWIN KINGDOM VALLEY** Bug-Byte
9	(29)	**MOUNTAINS OF KET** Incentive
10	(11)	**SNOWBALL** Level 9
11	(16)	**HAMPSTEAD** Melbourne House
12	(22)	**SPIDERMAN** Adventure International
13	(23)	**COLOSSAL ADVENTURE** Level 9
14	(6)	**SHERLOCK** Melbourne House
15	(15)	**EUREKA!** Domark
16	(13)	**AVALON** Hewson Consultants
17	(17)	**THE HOBBIT** Melbourne House
18	(10)	**THE HULK** Adventure International
19	(28)	**LORDS OF MIDNIGHT** Beyond
20	(—)	**LORDS OF TIME** Level 9
21	(25)	**ORACLE'S CAVE** Dorcas
22	(—)	**OUT OF THE SHADOWS** Mizar
23	(—)	**INVINCIBLE ISLAND** Richard Shepherd
24	(27)	**VELNOR'S LAIR** Quicksilva
25	(—)	**GOLDEN APPLE** Artic
26	(—)	**VALHALLA** Legend
27	(21)	**QUEST FOR THE HOLY GRAIL** Dream
28	(—)	**PLANET OF DEATH** Artic
29	(—)	**ESPIONAGE ISLAND** Artic
30	(26)	**SHIP OF DOOM** Artic

The winner of the Adventure Trail Chart for this month is **Mark Smith**, Chorley, Lancs. The four runners-up are: **John Piggot**, Abrone Hill, Cumbernauld, Glasgow; **Simon Brock—Gunn**, Northampton Hall, London EC1; **Jan van Leeuwen jr**, Heerhugowaard, The Netherlands, **RA Bould**, Pennycae, Clwyd.

THE CRASH HOTLINE IS 0584 (LUDLOW) 3015



Bugaboo 4 seconds
Dangermouse in D T saved the world 5 times
Kung Fu black belt level 8, 525
TLL 9524
Pogo 93500
DT Decathlon day one 1,362,223 day two 2,623,498
Pool 1520 on frame 4
Match Point beat the computer in the final
Knight Lore completed 87%
Underwurlde completed 73%
Alan Johnston, Knightswood, Glasgow.

Doomdark's Revenge completed in 100 days
Alien 8 4 chambers covered
Combat Lynx 6,700
Sabre Wulf 268,370 at 90%
Kung-Fu Black belt L T, 280
Pheenix 61,455
Underwurlde 5,200 at 24%
TLL 8,116
G Keeting, Colliers Wood, London

Pyjamarama finished with 91%
R.Kirkham, Sheffield, S.Yorks

Skool Daze 3170600
Chequered Flag cambridge ring 51,785
Pogo 59,250 level 10
Turmoil 2,720 level 1
Pssst 122,740
Martin Hughes, Goldington, Bedford

Pogo 95,275
Android2 104,600 completed 7 times
Pssst 181,775
Deathchase 261,111
Ant Attack 48,528 10 people saved
HERO 144,240
Steve Davis Snooker 46 break
TLL 103,010
Starstrike 1,326,600 on medium
Eddie Kidd Jump Challenge 14 cars cleared
Doomdark's Revenge completed
Atic Attack 98% completed
Sabrewulf 100%
Braxx Bluff on the third attempt
Skool Daze completed
Pyjamarama 2,722 paces
Tranz-Am completed
Match Day 13-0 at International level, 5 mins each way, never conceeded a goal to the computer
Full Throttle first on all tracks within 2 laps
DT's Decathlon day one 468,972 day two 603,478
SJ Hawrylak (15), Tunbridge Wells, Kent
Surprised you had time to write SJ!

Alien8 complete after one and a half days
Knight Lore completed at 89%
Underwurlde completed at 31%
Sabrewulf 100,890 completed at 98%
Atic Atac completed 19mins 27secs
Pogo 75,890 at level 12
Tranz Am 24 cups
Delta Wing won the war
Turmoil 4640 on screen M
Skool Daze completed once with 24,040
Jim Gillon, Colchester, Essex

Airwolf two scientists
Turmoil level L
Skool Daze 2 terms
Starstrike879,600 on easy
Sabrewulf 268,370 at 92%
Moon Alert 22,640 on stage 5
Knight Lore 62% 5 charms
Chuckie Egg 259,150 on level 20
Paul Brown, Portsmouth, Hampshire

Every One's A Wally Wally's pay £220, Wilma £350, Dick £200, Tom £50, Harry £260, overall £1080
Michael Foard, Dartford.

Night Gunner level 11
Thrusta level 6
Orion 52 men
Pssst 32,000
Booty 52 bits
Pyjamarama completed at 88%
Skool Daze 25,860 completed 1 year
Hunchback II level 7 two bells left
Eights beat computer
Splat level 5
Manic Miner completed
Mugsy survived 21 years
Penetrator completed two and a half times in one game
Arcadia completed
3D Deathchase 84,320
Hungry Horace 502,750
Kosmic Kang completed
Harrier Attack 29,530
Cookie completed cake
Armageddon level 18
Jungle Trouble completed
Terra Force level 7 6,860
Freez Beez 6520 level 7
Pinball 18,500
Astro Blaster level 5
Galaxians level 9
Full Throttle 1min 34 secs, first

Bristles screen 6
Chinese Juggler screen 7
Airwolf 1439 and 2063
Buggy Blast cycredits 8,063 level 4 39.4%
Football Manager 4 seasons, FA cup 3x League 3x
3D Starstrike 991,560
Match Day 9-1 in a 5 minute match, beat pro. level and won match day special
Monty Mole level 13
Pogo 87,680
Frank n' Stein level 9
Craig Macwaters, Towcester, Northants
My Craig you have been busy

Time Gate 22,400 on level 5
Star Strike 1,133,400
Galaxians 33,880
Everyone's a Wally £570
Zzoom 114,850
Kevin Devine, Eastfield, N Yorks

Bruce Lee 100,250
Dukes of Hazard 18325
Battle Zone 52,000
C Jones, Europe

Ghost Busters £850,000
Moon Alert 298,310, mission completed twice
3D Starstrike 642,900
Jet set Willy completed
Knight Lore completed at 97%
Skool Daze 3,820
Alien8 42%
Jetpac 80,680
Robert Taylor (12), Rayleigh, Essex

Pssst 121,640
Cavelon 50,890
Atic Atac 4,529,356
Psytron 224%
Starbike 144,440
Henry White, Margate, Kent

Harrier Attack 27,460 on level 1 and 26,860 on level 2
Stephen Jones, Broughton, Chester

Raid Over Moscow 86,200 on fair
Simon Mooney, Stockton on Tees, Cleveland
Simon PCG is now pushing up daisies

Skool Daze 50,570
HERO 46,990
Pyjamarama 97% 4,726 paces
Manic Miner 32,764
Astronut 2830
Automania 6,656
Monty Mole 2,177
DT's Decathlon day one 340,915 day two 407,497
Dan Leng, Guisborough, Cleveland

Pogo 128,520
Not such a bad score after all Mr Geogh

Starstrike 1,330,000
We have the head (the one with the glasses) but not the name. For those of you sending mulliple entries please put your name and address on EVERY piece of paper. Otherwise you could end up like Mr X.

Monty Mole 18th screen
Chuckie Egg 219,780 at level 20
Pssst 91,240
Atic Attack 99% in 32mins 17 secs
Full Throttle 1st at Silverstone and San Marino
Tranz Am 14 Cups
Harrier Attack 23,260
Sabre Wulf completed
Jet Set Willy completed
Graham Kelly, Sutton, Surrey
Monty Mole second screen
Ah Diddums box 9
Pyjamarama 59%
Atic Attack all of golden key collected, not quite completed
Harrier Attack 17,520
Match Point beat the computer on the quarter and semi finals, but it beat me as well!
These are Graham's Dad's high scores, not bad 'ole timer!

Once again I emerge from beneath a massive pile of paper which makes my desk groan to bring you the world's most amazing letters pages, well, it's a fairly good one anyway. Quite a lot of carping going on this month, but we'll get to that later. First, Letter of the Month — I picked this learned treatise on the fundamental ethics at the heart of Design Design games. . . .

AS CLEAR AS CRYSTAL

Respected Sir,
Over the last few months I have been studying various offerings by that notable institution — Design Design (which name can also be taken to mean Crystal, if you see what I mean). I have made several observations and discoveries, and gleaned others from various acquaintances. I would be pleased to see what other little details have been unearthed from these programs by CRASH readers.

Invasion of the Body Snatchas: Try putting the following into the hi-score table:
"Tony Bridges"
a row of full stops
"***** you" (don't put asterisks, use your imagination
"Zaphod Beeblebrox"
There are others.

Dark Star: In a similar manner to IOTBS, the latest Design Design offering has certain phrases which elicit interesting responses. Try these:
"Tony Bridges"
"Jet Set Willy"
"Matthew Smith"
a row of full stops (and compare with the response given by IOTBS)
try holding down CAPS/SYMBOL SHIFT and pressing each key on the keyboard in turn, starting with 1 and ending with ENTER. A very laudable message is displayed.
Try "Crystal Computing"
"Design Design Software"
"Ultimate Play the Game"
"Invasion of the Body Snatchas" (try that one out Lloyd)!
"Rommel's Revenge"

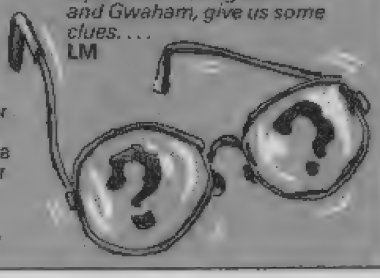
Certain other silly messages can be found in the program, not so well hidden, but still not immediately obvious. Try printing out the hi-score table without the printer attached — another laudable message! Also from the options menu choose 'game type' and press 7 when on the menu which includes 'no planets', and all those.

Another interesting pursuit for students of Design Designology (the games are secondary to the front end) is the origins of the names etc in the hi-score tables. *Darkstar* has a choice of about five tables which might appear. One of these is full of quotes from monty Python, 'Help, Help I'm being repressed!' for example. Another gives the lyrics of some merry little ditty, and the catalogue number of a compact disc - CD3708. Anyone got time to look it up?

Other names I can throw light upon include the companion of Kickaha, Speaker to Animals. This is the name of the chief character in the classic sf novel *Ringworld*; worth a read. Sgt. Pinback, who appears in IOTBS, is one of the crew of the ship Dark Star in the film of that name — also an sf classic and worth a watch. I can't place the other mysterious folk — Dipso Dave, Czar Murdigog the Headless, Greatheart Silver, and many others.

Contributions welcome! How about some clues design Design, eh fellas?
Matthew Chattfield, Alverstoke, Gosport, Hants

The Design design team are full of little jokey thingies, it comes from working at night and sleeping by day as well as the consumption of a vast quantity of coke, sorry Coke (TM). I've mispiaced the headless Czar myself, but Greatheart Silver is a character from the Thomas Covenant trilogy of books — well worth a read. Dipso Dave is (if I remember rightly) an unkind nickname for a programmer. As you are probably aware by now, the compact disc number was the clue to get the passwords for the SPECTACLE program included on the Dark Star tape. Come on Big Simon and Gwaham, give us some clues. . . .
LM



THE ALIEN 8 CONTROVERSY. . .

The launch of Ultimate's Alien 8 *has brought a crop of letters onto my desk — some full of praise, others rather less chuffed about the new release. Here's a taste of the mixed opinion, starting off with one who was less than thrilled. . . .*
LM

I would like to tell everyone that *Alien 8* is just a copy of *Knight Lore*. The graphics are 100%, but to anyone with *Knight Lore*, it's a waste of money. I thought that after the comments received after *Sabrewulf* was released, Ultimate would not do such as thing again — redoing a game and selling it under a different title.

The Ultimate games, once the ultimate ones to buy, are no longer worth their price and title. A friend of mine used to collect every Ultimate release, but stopped after *Sabrewulf* due to the lack of originality and high price. I feel very bitter about *Alien 8*, and it proves to me that Ultimate are getting greedy.
Li'l Bill, Redditch, Worcs

I am writing to warn you of the piles and piles of letters you will no doubt shortly be receiving, all of them identical. As you remember, when *Sabre Wulf* was launched by those wizards at Ultimate, you were flooded with letters saying that if you change the trees to walls you would have *Atic Atac*. This was idiotic, and I was glad when it was over.

Now here comes *Alien 8* which I have played. I think it is brill, and though it looks similar to *Knight Lore*, the game is totally different and in my opinion, it is better.

I feel the similarity will go to people's heads, and this letter writing craze will start again, so I just wrote to warn you.
Jim Marriot, Cambridge

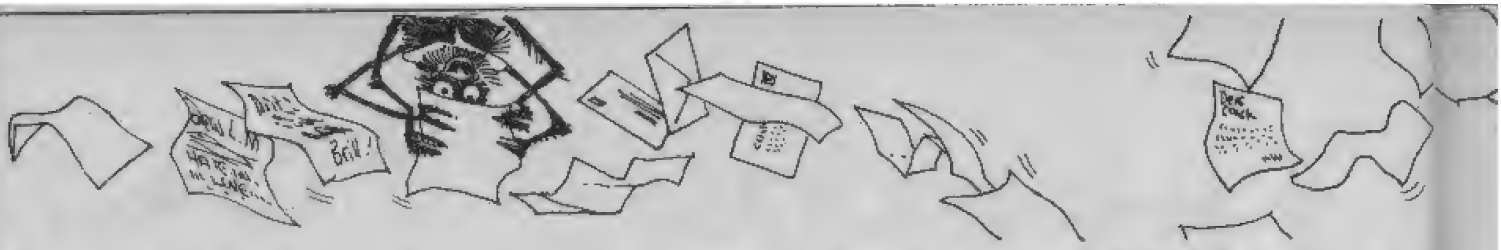
After the *Atic Atac, Sabre Wulf* similarity, I was astounded that Ultimate had the nerve to bring out *Alien 8*. The only difference between *KL* and *Alien 8* is that *Alien 8* is set in space age surroundings. The gameplay is the same; the graphics are the same; the nasties are the same; the set out is the same; the colour is the same and the object of the game is the same.
Bryan Lade, Cranleigh, Surrey

After a couple of weeks spent fretting at home, waiting for *Alien 8* to be released, it finally came out, I parted with my money and rushed home to load it.

I found it was an exact copy of an earlier game — yes, you've guessed it — *Knight Lore*. It was still worth the money, though, just for the sheer brilliance of the graphics — but I still feel it was a bit of a rip-off.
Simon Lunt, Oldswan

Last week *Alien 8* came out and a mate of mine bought it. He took it home and showed it to me. How boring. It's merely a cheap (well, not so cheap) copy of *Knight Lore*. So come on Ultimate, bring out something different.
Chris Morgan, Wollaton, Notts

I would like to tell you that I bought *Alien 8* on Friday 15th Feb. Without doubt it should be a CRASH SMASH. It is an amazing game and although people are bound to say it is too much like *Knight Lore*, all I can say is that it's software houses like Ultimate that are keeping the Specie alive. Keep up the good work Ultimate, and you lot at CRASH!
Steven Routledge, Hayes, Middlesex



Just like *Sabre Wulf* was *Atic Atac* with leaves, so *Alien 8* is *Knight Lore* with different graphics and a funny magnetic effect that drags you onto triangles and eggshells. I have had, torn from my grasp, £14.95 (I bought *Alien 8* and *Knight Lore* from a discount shop) for what is in effect one game. Most people would have paid £19.90 for the same games and would probably break down and cry into their pillows for months on end — as I will be doing.
Colin McDevitt, Milford Haven Dyfed

Having just bought *Alien 8* and knowing that all Ultimate games are great, I would just like to say 'three cheers' for Ultimate for another great game.

Alien 8 has stunning graphics, and is in a way similar to *Knight Lore*, but this doesn't change things — now you are a robot (Sabre Man must be a bit tired after three adventures, eh?)
Martin Cresswell, Shepshed, Leics

Can I just say that I think Ultimate are ripping us off, and they are making a lot of money over a slightly changed copy of *Knight Lore*? I like the game, but it would have been much better if there had been a variation.
Andrew Douglas, Hull, Humberside

I have had *Alien 8* for two weeks, and think it is brilliant, better than *Knight Lore*; both more playable and addictive. Please, please, don't make any excuses and produce a brilliant map of *Alien 8*.
Michael Moon, Polegate, Sussex

I have just completed *Alien 8* with a rating of 'Adventurer' and I would recommend this games to any Spectrum owner. I found it more enjoyable than *Knight Lore* because the rooms are easier to pass through.
Robbie Francis, Crewkerne, Somerset

The previous handful of letters are only a fraction I have received and as you can see for every complaint there is some praise. My own humble (and doubtlessly unwanted, but here it is anyway) opinion, is that Alien 8 *is much better than* Knight Lore. *It never fails to amaze me how much time people will spend on games of a very similar character, and then when Ultimate produce two outstanding games which happen to use similar graphics and gameplay, that lots go berserk with acrimony. The real problem, surely, is that Ultimate's graphics in these two games are so outstanding that the similarities in the two games stand out so much more than they would if the graphics were indifferent. I have spoke.*
LM

SHOCKED!

Dear Lloyd,
I was shocked to see in your March issue a blatant advert for pirate tape-copiers. It was called a 'tape back up device' and stated that it could make back-up copies of software with any kind of loader. This is obviously a blatant attempt to solve the problems caused by games with hyperload. I know that this advert will get around the ASA, but surely you don't expect us to believe for an instant that this advert fooled you. For a magazine that is constantly criticising piracy, it seems pure hypocrisy that you should allow this advert in your magazine. Is your desire to make money so great that you are willing to print this virtually criminal advert?
Sean O'Flynn, Nunhead, London

The advert you are referring to has actually been within the pages of CRASH for some months now. While it is true that it is certainly an aid to piracy, if you like, it is also a fairly essential program for copying games to microdrive. There has been considerable argument in the computer press about where to draw the line on 'copycat' programs. At one time they were definitely aimed at the home copying market, but with the advent of microdrives, the lines become a bit more blurred. Are you really arguing that no one should be able to use the fast load/save routines of the microdrive to get games on and off their screens as fast as possible? Even with the price of m/d coming down, no one has seriously suggested that pirate copies on m/d are a realistic possibility.
LM

COMPUTERS ARE SUBVERSIVE . . . !

Dear CRASH,
The first part of this letter is going to be similar to Dragon Stieglitz in your Christmas Special.

I live on a minute, remote island in the middle of an ocean. It is ruled by a dictatorship of fascist bully-boys who refuse to let people use computers in case they grow intelligent and overthrow their regime. Our government has a joint IQ of five and a half, so being more intelligent than them isn't too hard.

Some smugglers brought a single Sinclair Spectrum into our country, which I obtained for unspeakably large sums of money. I am at a loss now as I am getting quite advanced, with my IQ up to the five mark already — one more point and I'll be able to overthrow the government and become a national hero.

I need to expand my system as well as my mind to achieve this noble goal, and I need a microdrive and Interface One. But, owing to the fact that computers are illegal in my country and there is no postal service which means I can't send money, my upgrade must be a gift. I would be eternally grateful if you could send me a microdrive and Interface One.

Because of the aforementioned lack of postal services in this part of the world, you'll have to send the upgrade to the address mentioned at the foot of this letter — this is the address of my friend the smuggler.

In return, you can have my collection of rare sand granules collected from a beach near my house.

Well, sorry about that burst of manic sarcasm, it's just that I feel you're being done if you oblige these people. Any Tom, Dick or Harry (Wally or Wilma or even a herbert — Sorry L.M.) could write in with a hard luck story and scrounge some item of hard or software off you. So what if they live behind the Iron Curtain? That's the way the cookie crumbles.

Enough of this carping, now for the rest of my letter. I think it's a brilliant idea of yours to introduce the Multiple Entry facility for competitions — no other magazine has been considerate enough to think of us poor competition freaks and our large stamp bills. *(See the Results page for an explanation of the Multiple Entry scheme, some wallies have got it all wrong! — Ed)*

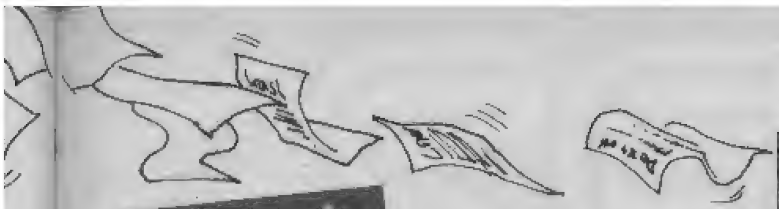
I'd also like to say that I'm disgusted with the software companies who refuse to pay you for their adverts and who expect good reviews in return for future adverts. This behaviour is both childish and unfair. For their information I read left hand pages as well as right hand pages, and if they don't specify what they want, it's their tough luck.
Robin Binney, Newark, Notts

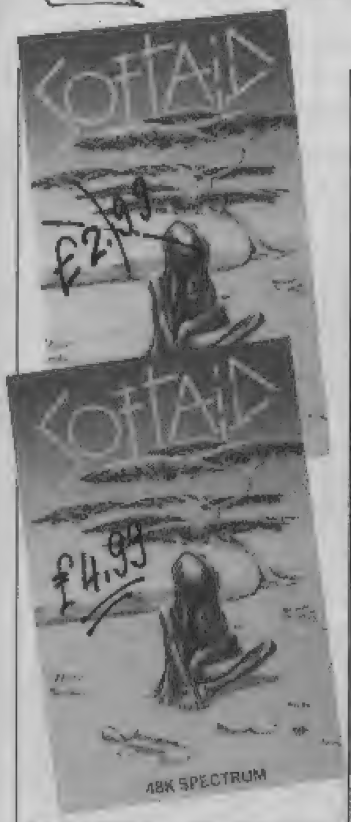
Gosh, Robin, you had me spellbound there for a moment. I must dash upstairs immediately and inform the mail order people to stop sending Red Cross hardware parcels to the folk behind the Iron Curtain! Thanks for the support regarding our fortunately very few problems with some advertisers. It's nice to know that readers care about these usually behind the scenes affairs.
LM

SWEATSHIRTS FOR THE PEASANTS

Dear Lloyd,
After reading the March issue of your great magazine, I noticed a photo of some of the prizes for the *Knight Lore* and *Underwurlde* map competitions. Some of the prizes were Ultimate caps and sweatshirts, diaries etc — what I would like to know is whether the ordinary peasant in the street ie me, can buy any of the goodies shown? And if so, where from and how much will they cost?
Morgan the Magnificent, Torpoint, Cornwall

Well, Morgan the Magnificent, the goodies shown were, of course, supplied by Ultimate as prizes. I'm not sure about the diaries, but I suspect the caps and shirts can be purchased direct from Ultimate.
LM





YES TO LIBRARIES

Dear Lloyd,
After reading Angela Simpson's letter about software libraries last month I was sure to agree with her. I have been done, buying games like *Booty* which you CRASH SMASHED. Quite honestly I wouldn't give it 30%. Buying games can lead to a lot of wasted money, so I think you should be able to hire a game first, before buying it.

As you are so rich at CRASH, why not start a software library yourself. You could lend out games which you have not sold through CRASH mail order . . . No? . . . Oh well, I only asked.
James Driscoll, Harrow, Middlesex

You've got to admit, James, that if everyone in the land could borrow games virtually for free, that they would hardly be likely to ever buy them, resulting in such a drastic loss of revenue that software houses would not bother to compete in the games market. As I think I've said before, if Public Lending Libraries could be party to a royalty per lend scheme, then this would alter the situation dramatically. If we did ever start a software library, would you come over to Ludlow from Harrow to borrow games? Posting 'borrowed' software would make everything quite expensive and be unworkable. So until Lending Libraries get their act together, it is only going to be the lucky few with one near enough and enlightened enough who will be able to borrow software.
LM

SOFTAID COSTS

Dear Lloyd,
Following an article in the March issue of CRASH about the Soft Aid tape, I dashed out to buy it for £2.99, which was the price you printed in the News Input section.

On entering one of the larger computer stores in Liverpool, I found that the Softaid tape was selling for £4.99. I went straight to WH Smiths, who didn't have it in stock, but told me that it would sell for £4.99. Is this correct? Was there a CRASH misprint, or is somebody creaming off £2.00?

I don't mind paying £4.99 — it is a very good tape, and I would recommend it to anybody. I just hope that most of my cash will go to the Ethiopian Appeal, and would be grateful if you could confirm this.
Vina Kelly, Bootle

No problems, Vina, it was the pratts at Quicksilva who released the price of £2.99 and we wrote the story in News Input using the information they sent us; Then surprise, surprise, they shoved the price up to £4.99 when they launched it at the LET Show. In last month's issue I mentioned this fact, and by now you are probably aware of it! I hope and trust that most of your cash will go to the appeal fund — certainly none of it to my knowledge is going into the Lloyd Mangram Appeal Fund, more's the pity.
LM

LOADING SCREEN

Dear Lloyd,
Please, Crash, please think about this suggestion I am about to make: why not include a comment on the loading screens of programs under the 'Comments' heading when you review them?

I am a fan of loading screens and always love the graphics that are produced during loading. I feel it would complete your comments section if you referred to the loading screens. All that is needed is a couple of words on what the loading screen is in terms of graphic content and novelty.

I don't see why you should not take up my suggestion as you do almost everything else!
Toby Heiser, Maidenhead, Berkshire
P.S. Who is this — Ed guy that keeps butting in on competitions and such like, he's a rude little 'overn isn't he!

I'll put this to the review team. In fact we used to mention particularly good looking loading screens in reviews, but lately this seems to have been a bit forgotten. I won't hear a word against — Ed, he pays my meagre salary.
LM

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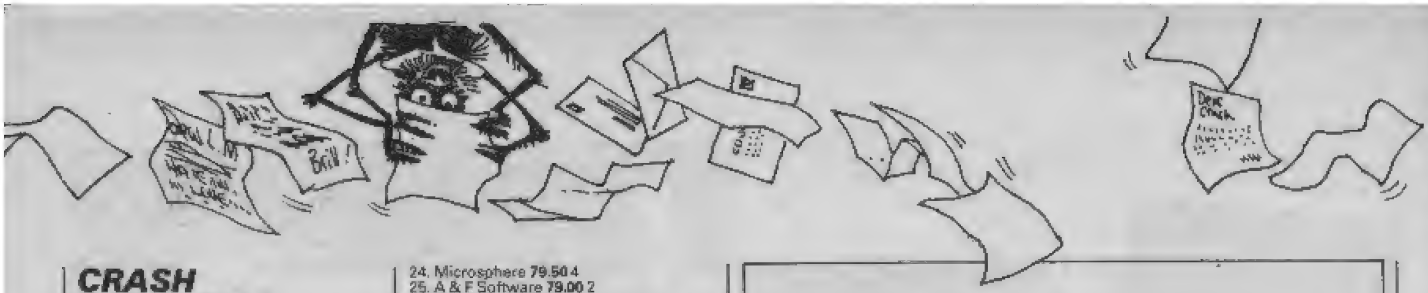


CRASH STATISTICS

I'm always amazed by the extraordinary detail some of our readers will go into! The following letter is one such, and it provides some valuable insights (don't know what though!) into games and players. I haven't had the time (or the inclination!) to check these statistics compiled by **Paul Stevenson** out, but here goes:
LM

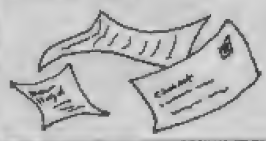
Dear CRASH,
I present you a CRASH MICRO Statistics chart. I have been doing it since the magazine started in 1984. I hope you will find these interesting and print them in a future issue. First, Best Companies, ie those with the highest averages as reviewed. The three columns show position and company, average Overall rating and finally the number of games reviewed.

1. Ultimate **94.50** 5
2. Durell **90.00** 2
3. Myzar **90.00** 1
4. Poppysoft **90.00** 1
5. Interstella **89.00** 1
6. Digital Integration **88.50** 2
7. Realtime **88.00** 2
8. Mr Micro **88.00** 1
9. Gargoyle Games **86.00** 2
10. Micromega **85.56** 8
11. Elite **85.00** 4
12. Level 9 Computing **85.00** 2
13. Vortex **83.33** 3
14. Applications **83.00** 1
15. Software Projects **82.75** 8
16. Bug-Byte **82.50** 8
17. Macsen **82** 1
18. Timescape **82.00** 1
19. Ocean **81.00** 14
20. Gremlin Graphics **81.00** 2
21. Hewson Consultants **80.50** 8
22. Ram Jam Corporation **80.00** 1
23. Fantasy **79.60** 5
24. Microsphere **79.50** 4
25. A & F Software **79.00** 2
26. Eurobyte **79.00** 1
27. US Gold **79.00** 1
28. Micromania **78.88** 4
29. Melbourne House **78.25** 4
30. Falcon **78.00** 1
31. Abbex **77.50** 2
32. Procom **77.50** 1
33. Database **77.00** 1
34. Electric **77.00** 1
35. Thorn EMI/Creative Sparks **76.92** 12
36. Silversoft **76.86** 11
37. Compusound **76.00** 1
38. Heinemann **76.00** 1
39. PSS **75.80** 5
40. Beyond **75.60** 5
41. New Generation **75.33** 3
42. Adventure International **75.00** 2
43. Dorcas **75.00** 2
44. Eclipse **75.00** 1
45. Express **75.00** 1
46. SCR Adventures **75.00** 1
47. Firebird **74.87** 3
48. Incentive **74.36** 7
49. Hill MacGibbon **74.00** 2
50. Starzone **74.00** 1

(There is much more, in fact Paul goes up to position 168! He also gives the Sutton Centre Community School Top 10 games . . .)

1. MATCH DAY Ocean
2. TECHNICIAN TED Hewson Consultants
3. MONTY MOLE Gremlin Graphics
4. HUNCHBACK II Ocean
5. SKOOLDAZE Microsphere
6. PYJAMARAMA Mikro-Gen
7. DT's DECATHLON Ocean
8. AVALON Hewson Consultants
9. MONTY IS INNOCENT Gremlin Graphics
10. DOOMDARK'S REVENGE Beyond

Thank you Paul. The trouble with this sort of thing is that it's out of date as soon as you produce the figures! But keep going . . .
LM



BLOCK BUSTED

Dear CRASH,
What are Compusound playing at? After being told to withdraw *Blockbuster* because it wasn't officially licenced, I was shocked to see an advertisement for the same company depicting their new game *Wenderbender*.

This is an exact copy of *Blockbuster* in my opinion, with a different name, different shaped screen and a new price (up £2.00). I think this is disgraceful and I can't wait for Compusound to go bust.
Jochen Tree, Maidstone, Kent

I think your judgement is a little harsh, since you don't seem to be taking into account whether or not the actual game is any good. I thought the original and unlicenced Blockbuster *was pretty good. I must admit to not yet having seen* Wenderbender, *so I can't comment on the similarities beyond the fact that Compusound insist it is quite different.*
LM

HYPER GREED

Dear Lloyd,
I have just read, much to my dismay, an article which informs me that a new software protection device is being considered for use which incorporates software to check whether a tape is original by checking a signal on the special 'Safeload' program tape.

Software companies are blinded by greed it seems, and I think they are systematically aiming for the destruction of themselves, the computer industry and the whole concept of computing as a hobby.

All the money they lose from games being returned due to speed load/protection faults is going to mount up and exceed the profits they make on the average game. At this point, they put the prices up, and it is this that is destroying the industry. It is all becoming too technical, far too organised and the software houses' attitudes are ruining the fun element of computing.

Nobody, especially a teenager, wants to spend more than the value of their micro on games, and who will buy a Spectrum if they can only afford one game a month?

This said, if you've got the patience, two months after the release of a game, Fred the hacker from 'round the corner' will have broken into it and given copies to all his friends, so software companies — is it worth overcharging for your games? Why don't you stick with what you've got and be grateful that people are still buying your games - there's a limit to how far the software bandwagon can be trundled.
Richard Harrison, Forest Hill, London

I think there's a lot to be said for your arguments Fred — sorry, Richard — but you ought to remember that inventors of hyperload, protection devices et al are also entitled to earn a living by convincing software houses that this is the thing that will save them millions in lost revenue through piracy. You wouldn't want to add to unemployment now, would you? Seriously though, there is obviously a lot of disagreement over attitudes to piracy within the industry anyway with some software houses taking the stance that it should be stamped out, and others being more stoic. It is more the organised piracy of games that is the real killer.

The next writer also has something to say about hyper/turbo loaders. . . .
LM

FIRST AT THE LAIR?

Dear Lloyd,
I thought I'd write to you since as they've given you a bigger desk you'll need more fan mail to cover it with.

I'm sure you'll be impressed to hear that I'm the FIRST person to have completed *Wizard's Lair*! (Never, you're all saying, but it's true!) Surely I deserve just a little blot of ink on your page with my score: 218,140, 100%, 22 mins 43 secs, 220 objects collected.

Also I'd just like to thank you for my T-shirt. I'm the sister of the bloke who asked (he grovelled to) Roger Kean for a T-shirt at the LET show and got sent one FREE!! See, old Roger is a nice guy after all!
Cathy R Ash, Tonbridge, Kent
PS Can my friend Olly Octopus have a T-shirt with eight armholes please?

Your hi-score should have gone into the Hall of Slime, but I just couldn't stop you in time, Cathy! I think our T-shirt suppliers would have a fit if we ordered eight-arm clothing from them.
LM

TURBO TROUBLE

Dear Lloyd,
I am writing to try to help other CRASH readers who find they have a lot of trouble loading turbo or hyper loaders. First, I must say that from experience Ocean produce the worst copies of turbo loaders which refuse to load on just about every new, up to data tape recorder.

If you're having trouble loading turbos, the first step to take is to clean the heads of your recorder. The head cleaning tapes available aren't much use I've found unless they're the type which you have to put fluid on. In my opinion the **Alsopp 3** is the best head cleaner on the market which costs about £6.00 — but is it really worth spending this money just to make sure that your tape recorder can pick up the higher pitched tones of speed load tapes?

If cleaning your tape heads doesn't work, you can always try adjusting the heads on the recorder — this is done with a little screw, and the best way is to try loading a difficult tape and fiddle with the head adjustment until it loads.

Alternatively, you can buy a

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good quality audio tape and copy the turbo game onto it — I've found that the copies generally load more easily than the originals, but this approach is getting dangerously close to piracy isn't it?
Kevin Long, Chapeltown, Sheffield

In fact about three or four issues back (I can't lay my hands on the 'collected CRASHes' at the moment) I had a long piece about problems with turbo loaders, much of which was concerned with head cleaning and azimuth adjustment. It's worth noting that with Ocean games, the level of recording seems to be very high and requires an untraditionally low level adjustment on the volume of the recorder when loading. Doing this we have had little or no trouble with loading their recent games.

The next writer claims he has solved the entire problem. . . .
LM

SAFE TURBOS

Dear Lloyd,
In reply to Dave Bancroft in the March edition of CRASH, and for the benefit of any other Spectrum users frustrated by hyperload, I will pass on the perfect solution to the problem of loading troublesome hyperload programs.

After buying a copy of that superb Ultimate game, *Knight Lore*, I tried to load it with my trusty Sharp — never fails to load. I met with failure. It then ocurred to me that instead of loading it through the Spectrum's EAR socket, I might as well try loading the program through the MIC socket. It loaded first time!

Now all my hyperload programs load first time, when I use this method, but I would point out that you have to adjust the volume level until you find a setting that loads — and it will be a bit higher than for a standard load through the EAR socket.
Ian Howell, Kings Lynn, Norfolk

I haven't had the time to test this one out, although I keep meaning to, but if Ian is right then perhaps it will solve a lot of people's problems (which still doesn't mean you can get away with not cleaning your tape heads regularly)! Anyway, enough of hyper/turbo/expialidocious problems for this month, some readers have REALLY serious topics to discuss. . . .
LM

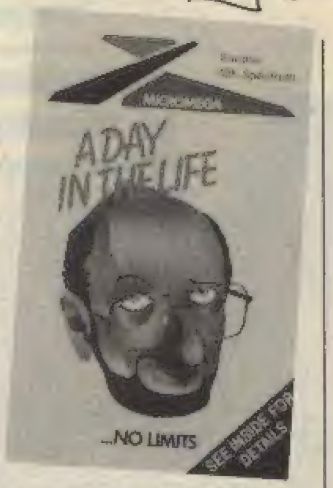
FROM THE DESK OF NEIL HOOPER

Dear Lloyd,
Thought you were somewhat harsh on *A Day in the Life*, but as an ex-journalist I would be the first to defend a reviewer's right to say what he feels — integrity depends on this approach.

I'd also defend the right of reply principle and there are a couple of points I wish to make.

The review claimed 13 screens — in fact there are over twice as many, it's just that the autodemo doesn't give everything away.

There is a simple trick to control of the Clive character. He does have to be accurately positioned to go up an available passage, but all you have to do is approach the turning using a diagonal movement on the stick or keys. Clive will run happily along a wall, or whatever, until he reaches the opening and then go through the gap as smooth as you please — same thing for staircases etc. Try it — the playability gripe will become a thing of the past. John Minson will confirm that at our press launch my brother Steve got through five screens in front of a live audience without loss and carried on to get a new personal best fifteen minutes later (by

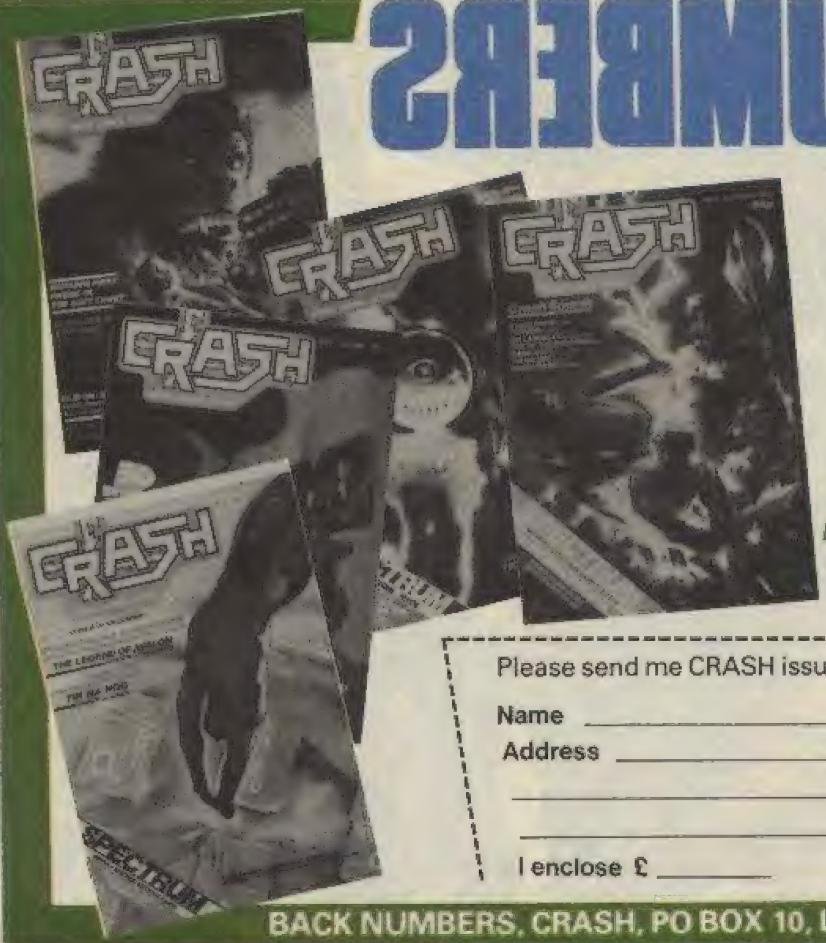


which time the rest of us were playing the other machines and covering the keyboards with wine and mayonnaise).

On a more general note, I wonder whether we do ourselves any favours by issuing the press with versions which offer infinite lives, or, in the above case, which allow free progress from one screen to the next at any time? While it gives your hard-pressed reviewers the chance to see (and hopefully be impressed by) the whole game, the challenge is far less and this may be reflected in the rating. Your thoughts would be

92

BACK NUMBERS



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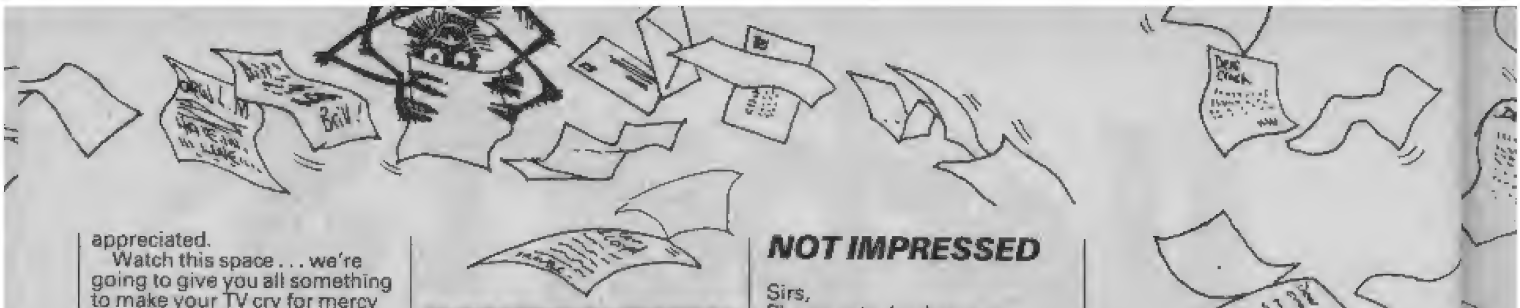


appreciated.

Watch this space . . . we're going to give you all something to make your TV cry for mercy (no it's *not* The Price Is Right . . .)!

Neil Hooper, General Manager, Micromega, London

It's funny how upset a bunch of reviewers can be when they end up being less than enthusiastic about a game released by a software house who has previously provided thrill after thrill in a seemingly unending stream - in a way it seems 'disloyal'; but the truth is that for the reasons given (probably more felt than actually stated) in the review, everyone was a bit disappointed in the game.

I take all the points about where the review was unfair in handling of Clive and the number of (I thought) rather entertaining screens, and is is certainly true that a pre-production copy which allows reviewers to live forever or access most or all of the game's screens must have an effect on those reviewers — as you say, the challenge is often missing even if you are aware of that fact academically. On the other hand there are more people to consider than just the reviewers — the poor devils who have to take screen photographs are not always arcade champs, so a doctored copy is essential there if a game is to have reasonable screen pictures to go with the review (not to mention the sheer time it can take to photograph twenty to thirty games when all of them demand dexterity)!

So perhaps the sensible answer is to provide two types of copy — one doctored so that it is possible to get a quick glimpse of the whole and make the photographers happy, and one as near the production copies as possible for the reviewers to get to grips with. (The modern software house answer of, 'Oh we'll provide you with printed screen dumps,' does not satisfy CRASH — they can be useful, but a photograph taken of the actual game on screen is more alive and satisfying than those rather 'dead'-looking screen dumps).

I don't think for a minute that anyone at CRASH doubts Micromega's abilities to make us jump with excitement at a new game, or make our TVs cry for mercy!

LM

INDEX WARNING

Dear CRASH,

I am a keen Spectrum owner and like reading the reviews on the latest software — and the older software which I missed — so I jumped for joy when I saw the advertisement for the CRASH review index: '....everything you wanted to know in CRASH but couldn't find...', which to look at indicates a magazine full of reviews.

So off went my money to CRASH Mail Order, and five days later a parcel popped through the letter box. When I opened it the first shock hit me — it was a tape. I loaded the program, expecting it to be a load of text reviews and then came shock No 2: it was a list of names of programs with page and magazine numbers, but the disappointment was that the only review was the percentage rating on each program.

So could you please WARN other Spectrum owners, that unless they have all the CRASH magazine back issues, then the CRASH index is useless.

K Pridmore, Anlaby, Yorkshire

I'm afraid quite a lot of confusion has arisen over this Index program. Actually, the basic idea behind it is quite sound, although, as you say, it's not much use unless you have all the back issues of CRASH, and of course this Index is NOT the one that goes automatically with the binders. Unfortunately, I don't think the very rushed half page advertisement for it three issues ago was very well thought out.

LM

NOT IMPRESSED

Sirs,

Please note that I am not impressed at all by Angus Ryall's Frontline reviews.

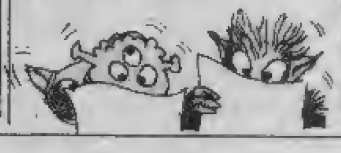
His March issue review is his biggest farce so far. If he knew anything about wargaming, he would have spotted that Lothlorien's *Panzer Attack* is just a copy of *Battle of Britain*, with a different scenario. This is just one example of his bungling, bigoted and unreliable performance as a 'Frontline' correspondent! He takes the cookie as far as excuses for missing his deadlines goes.

An Ardent Wargamer

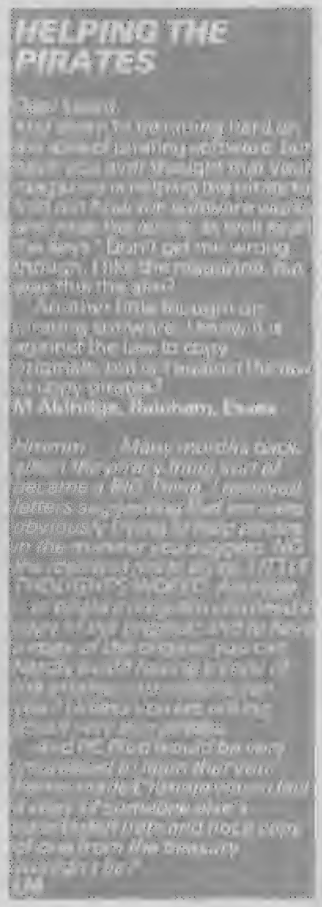
As far as I ever learnt in history, most wars are the same game with a different scenario. It's all very well feeling disgruntled, but how about some constructive criticism for Angus, that might then benefit other ardent wargamers? As luck would have it, Angus happens to be in the office today, right here to answer directly, so over to you Angus Ryall . . .

Dear Ardent, I have never tried to pass myself off as a wargamer freak — my view is that most of the readers of CRASH are not wargamers, and therefore do not want to read reviews full of the kind of detail that you obviously expect. But if my approach gets any readers to try playing slightly more sophisticated games than they have been, I'll sleep in my bed (despite the drips).

Angus Ryall



HELPING THE PIRATES



A BETTER TIP FOR DALEY

Dear CRASH,

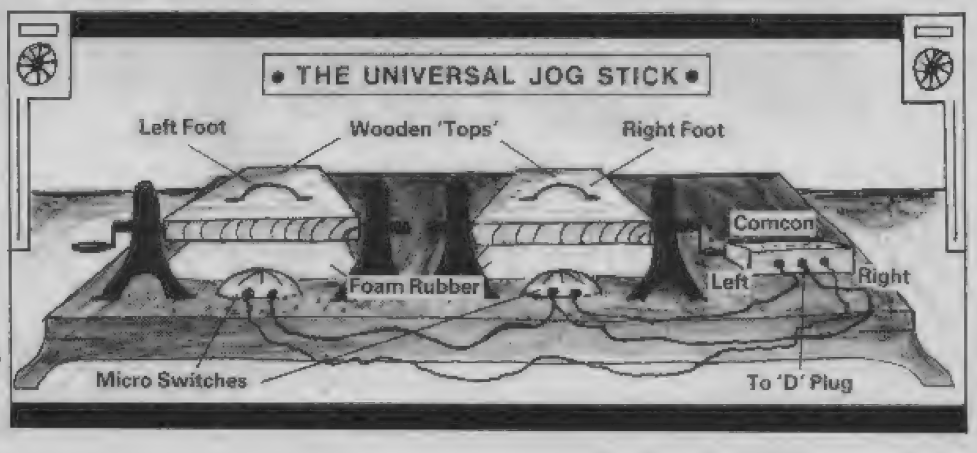
In issue 14 I noticed a tip for playing *Daley Thompson's Decathlon*, concerning the rolling of a golf ball over the keys. This is fine if you like smashing in the keyboard, but here is an invention to revolutionise *Decathlon* playing — THE JOG STICK (see enclosed plan).

You can now beat the world records just by running up and down on the spot. It also keeps you fit while staying in the comfort of your own home. Just plug it into your joystick interface and away you go!

Bernie Beeston, Bracknell, Berks

Amazing, Bernie, truly amazing. You should grab the patent as fast as you can! (Although the Ministry of Defence may have something to say about it).

LM



30th DAY OF FEB

Dear CRASH,
I realise I am probably the millionth person to point out the mistake in your 'CRASH on TV Again' report. How could you print such a good calendar with the Christmas Special and then say there are thirty days in February? I also noticed that you didn't risk writing 'February' in full, presumably in case you made another mistake!
Jonathan Shaw,Liskeard, Cornwall

I've never had any trouble writing the word Feberary — saying it is the problem, and haven't you heard of a Leap Year? (Okay so a Leap Year has 29 days, but what's a day or so between friends)? And sending twenty yards of ZX Printout with the word 'grovel' four times on each line won't help at all, Jonathon, although I've been told the hall does need re-wallpapering.
LM

MORE POSTERS

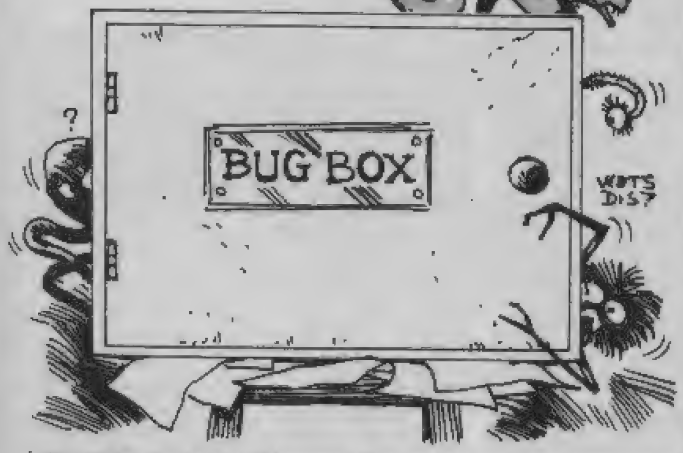
Dear Lloyd,
I reckon an improvement to your already fab magazine would be to use the centre pages for a poster. A good start would be the picture of *Airwolf* on Pages 4 and 5 of Issue 13
Nathan Wools, Bridgend, Mid Glamorgan

You reckon, huh? The problem with something like Airwolf is that it is of course an advertisement. But other ideas are possible from time to time.
LM

WHAT'S GOING ON?

Dear Lloyd,
I feel I should write as quite a few people, I think, have been conned. Of course, I'm referring to *Pyjamarama*. I saw a letter in the Christmas issue referring to a man who bought the game for £7.95. I've been hunting around and have found these prices:
1) A shop in London was selling it for £7.95
2) A shop in Birmingham was selling it for £6.95
3) A small shop in Bewdley was selling it for £1.99
and finally, I bought my copy for £3.00 in Leamington Spa.
Simon Atkinson, Bewdley, Worcs

I'm confused! The people selling the game for £1.99 and £3.00 have either decided to 'remainder' it (as far as I'm aware, Mikro-Gen have not officially lowered its price, so they must be doing it to clear stock), or I can only conclude that they have had access to stocks which are less than official.
LM



Okay folks, that's it for this month. I have received quite a bit of mail containing cartoons and Oli-style bugs over the months, so I've decided in future to devote a small corner of the Forum to displaying some of this artistic talent. If you feel like sending in some of your weirder ideas, it would be a valuable aid if they could be in a separate envelope marked — let me think — how about BUG BOX? As usual, it is LLOYD MANGRAM, CRASH FORUM, PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB. See you next month.

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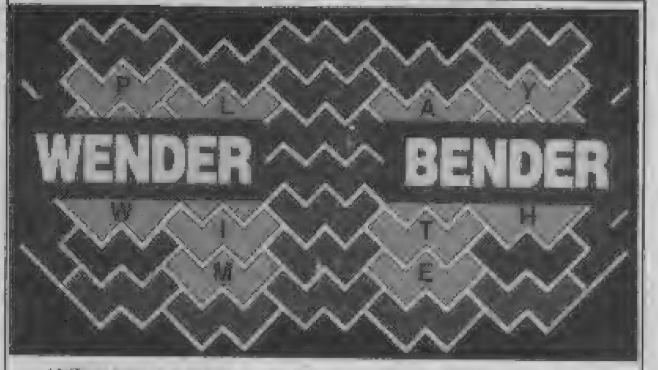
This widely acclaimed program (see Your Spect. No9, P14) is **ESSENTIAL** if you are going to transfer **MOST** of your programs to your drive. Try it and see for yourself — no risk!
MD1b (WD1b for disc or wafadrive owners) costs a mere £6.99

An **EXTRA** option to conveniently transfer converted bytes, with integrated header reader, option to alter program names, STOPS programs, etc, we have MT6 at £3 (for M/drive) or Wafatape at £4 (for Wafadrive owners). MT6 can be supplied on the same tape as TC6 for an extra £1.

UPDATE SERVICE: old customers can get the latest version of any product with a £2 reduction by sending old TAPE only, + SAE (large).
ALL PRODUCTS CARRY OUR MONEY BACK GUARANTEE (not updates)
OVERSEAS: add £1 Europe, £2 others for each product. SAE for enquiries.

LERM, Dept CR,
10 BRUNSWICK GDNS, CORBY, NORTHANTS

THE NO.1 GAME FOR THE 48K SPECTRUM



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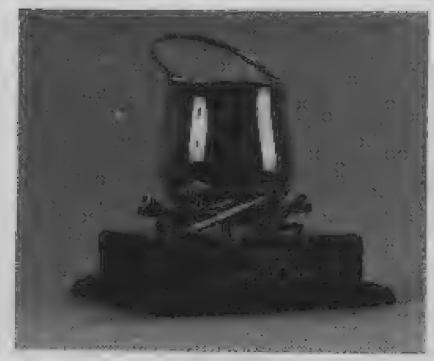
MAP RESULTS SPECIAL



The two marvellous and completely unique Ultimate trophies, KNIGHT LORE on the left and UNDERWURLDE on the right.

We announce the winners for ULTIMATE's UNDERWURLDE and KNIGHT LORE map competition, and HEWSON CONSULTANT's map competition for AVALON

First off, the Ultimate maps. Once again we received loads of entries of all shapes and sizes. Throughout, the standard was extremely high. So, onto UNDERWURLDE first. . . .

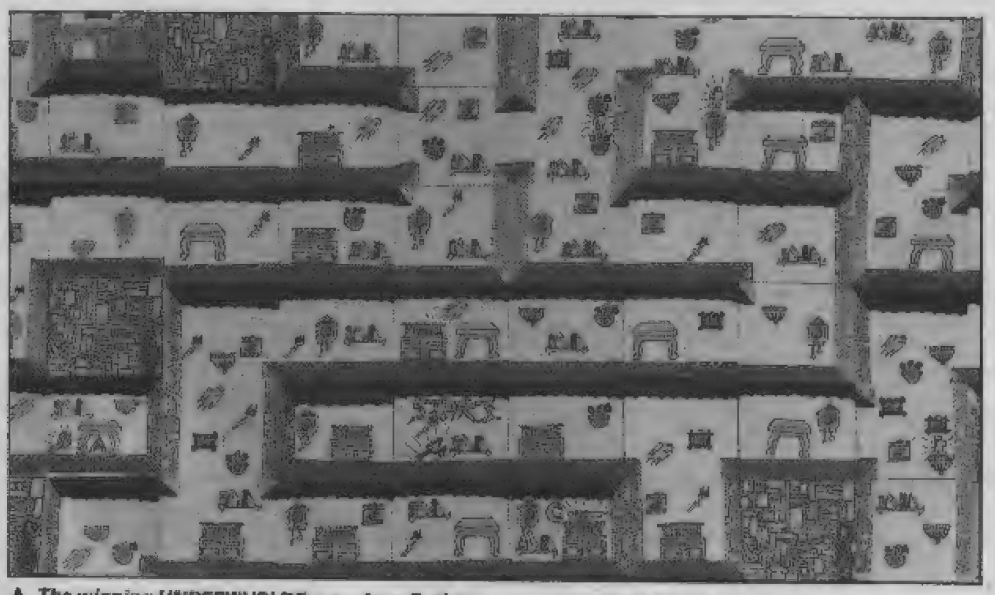
In the opinion of the judges (the CRASH art department headed up by art supremo Oliver Frey) decided that in **3rd place** the entry from **John Denny** of Burbage, Hinckley deserved the prize. John's entry is a pencil and ink rendition surrounded by carefully wrought mysterious runes.

In **2nd place** comes the team effort of the **Johnson Family** which includes **Steven, Sarah, Mum** and **Dad**. As with a lot of the better entries this time, the Johnson family entered a very delicate map largely employing line work.

The outright winner for Underwurlde is the largest entry for any competition ever. Without getting the ruler out, it measures approximately 18 feet by 8 feet! This was sent in by Damon RH Butler and **M Triggs** from Shipley, W. Yorks. The quality of each screen's detail is quite amazing, and size hasn't made the cartographers use large or coarse marks to get their effects.

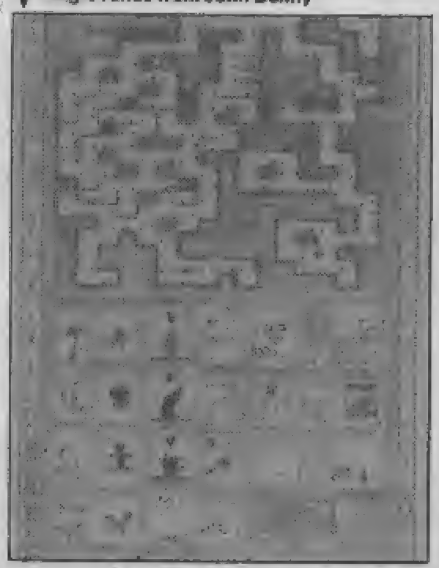
Now onto the Knight Lore maps.

In **3rd Place** the entry from *James Milner* from Coventry, deserved the prize. James entered a very large 3D model cut out from mini-cereal packets, mounted on four hardboard squares. A special mention here for James' mother (she got an honourable mention in the Sabrewulf competition for driving over at the last moment with James' vast entry — same thing happened again this time!) The Milner family have now got a year's worth of cereal to eat up.



▲ *The winning UNDERWURLDE entry from Butler and Triggs — a bit difficult to fit the huge thing in!*

UNDERWURLDE 3rd place — magic runes from John Denny ▼



96

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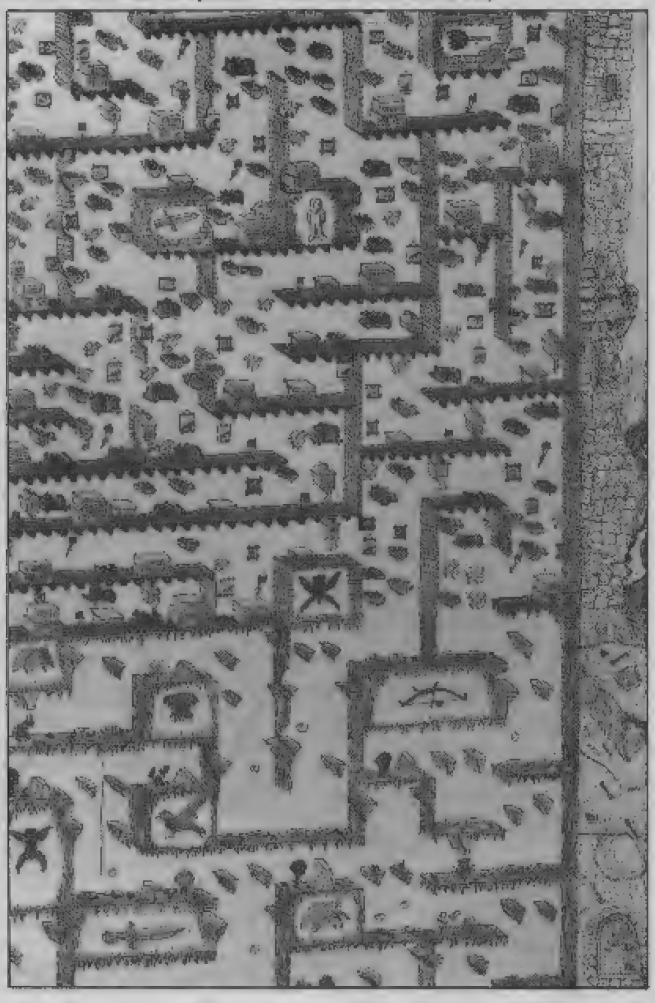
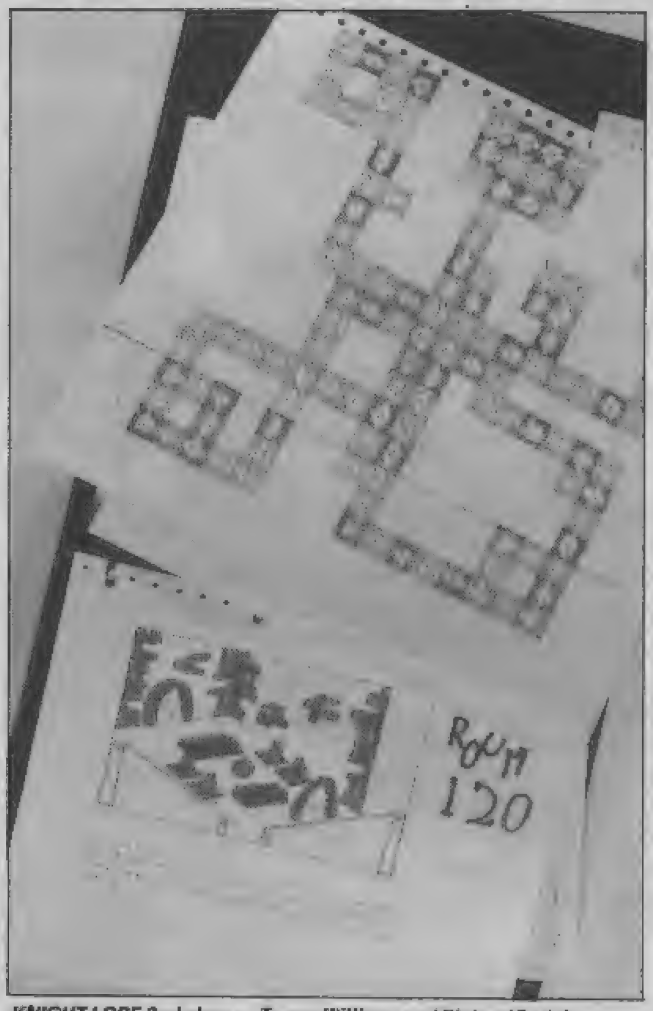
MAP RESULTS SPECIAL

UNDERWURLDE 2nd place — from the Johnson family





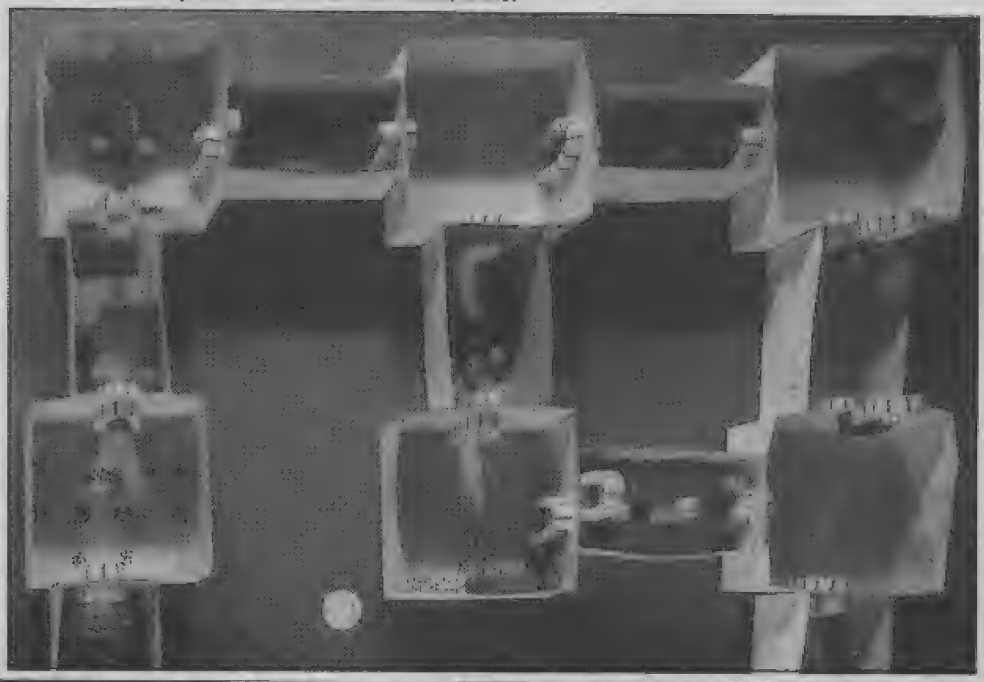
KNIGHT LORE 2nd place — Trevor Williams and Richard Padgham

In **2nd place** the team effort from **Trevor G Williams** (14) and **Richard M Padgham** (13) of Swanick, Southampton, earned praise for the large format bound volume they entered. This had a drawing of each room per page, as well an extensive manual detailing the characters, hazards and objects.

For Knight Lore, the outright winners are **Calum** and **Graham Thomson** from Rosneath, Dunbartonshire with a superbly delicate work largely in pencil. The quality of the drawing, the detail of the surrounds to the 3D representation is all excellent. The entire work is decorated with some very amusing bits, which add greatly to the map.

So, **Butler/Triggs** and **Calum** and **Graham Thomson** win the Underwurlde and Knight Lore trophies respectively. They also receive, together with the four runners-up, a box packed with a Spectrum+ and starter pack of 6 games, an Ultimate cap and 2 T-shirts, and a Pierre Cardin diary. Congratulations to everyone!

KNIGHT LORE 3rd place — the model from James Milner



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THE VIDEO GAME OF THE 25TH CENTURY...

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PLANET OF ZOOM

It's the 25th Century.
You are Buck Rogers fighting the battle of Planet Zoom. Skillfully slip through zapping electron posts. Dodge and destroy deadly space hoppers and alien saucers. Your race against time has just begun! Prepare for battle with your most powerful enemy . . . the Mother Ship! You must hit the Mother Ship dead centre. Anything less will only waste fuel. Aim steady, but hurry . . . your fuel is dangerously low!

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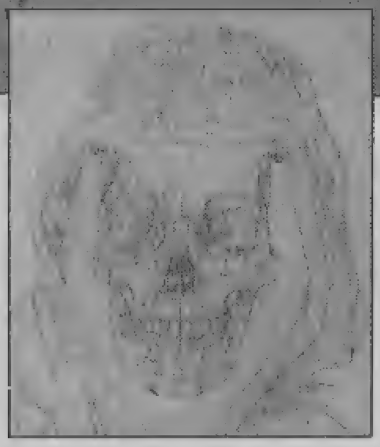
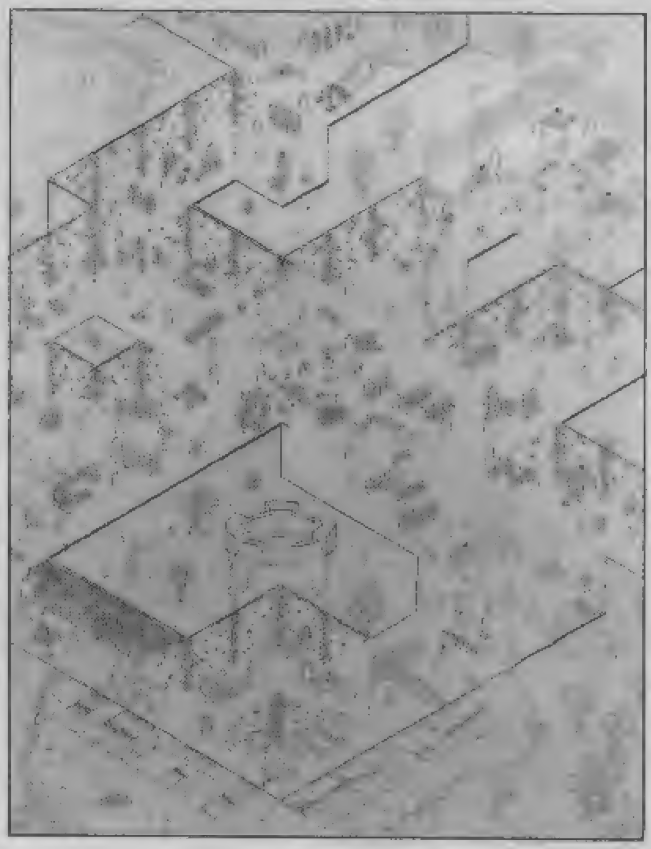
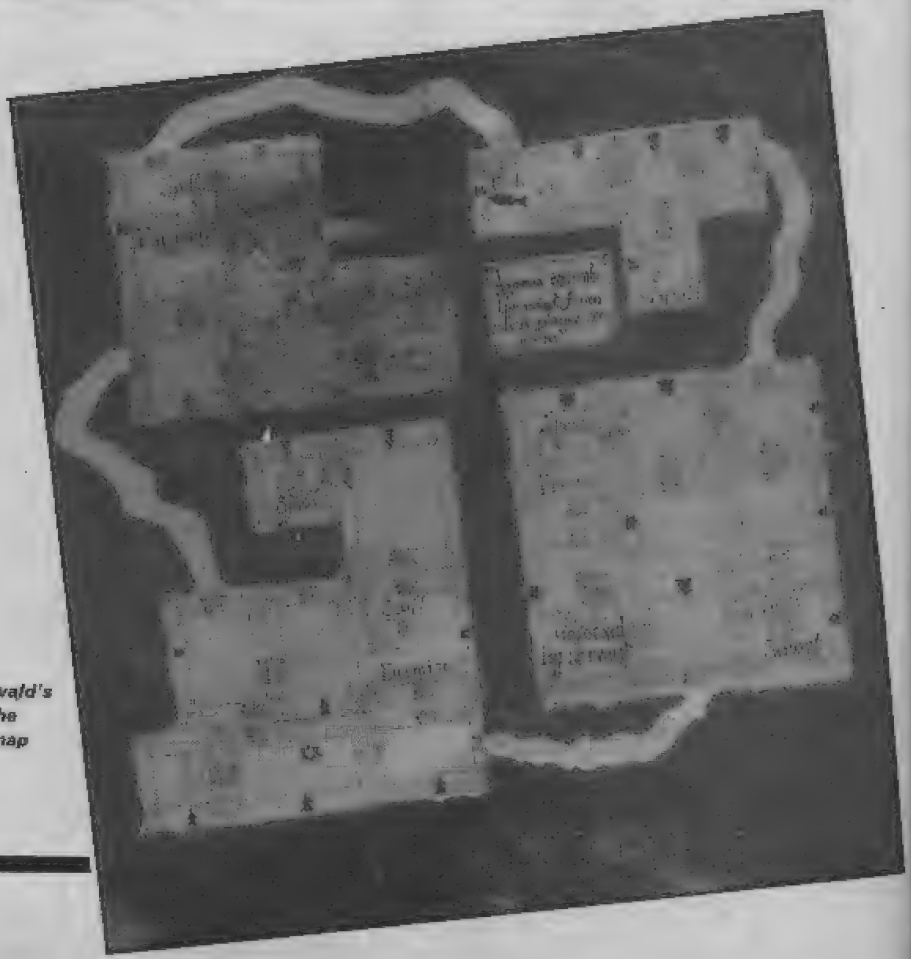


Perhaps the best entry overall, certainly the KNIGHT LORE winner, the beautiful drawing from Calum and Graham Thomson



And thus to the ancient Brits of Hewson Consultants. We had rather less entries for the AVALON competition, probably due to the game's difficulty (still loads of people writing and phoning in for help!), but picking a winner was also a tough task. In the end the judges decided on **Derek Oswald** from Newquay, Cornwall, who did his map based on the Gatehouse Level. Derek will have his entry specially mounted by Hewson Consultants and receive a parchment recording his victory, together with a copy of the follow up to Avalon, DRAGONTORC.

The runners-up to the Avalon Map competition, who each receive a copy of DRAGONTORC will be notified.



Derek Oswald's entry for the AVALON map

CRL SOFTWARE PRESENT

RICHARD O'BRIEN'S

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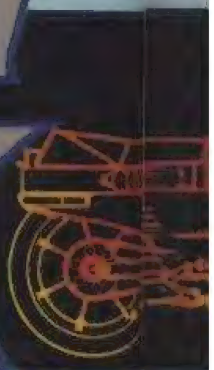
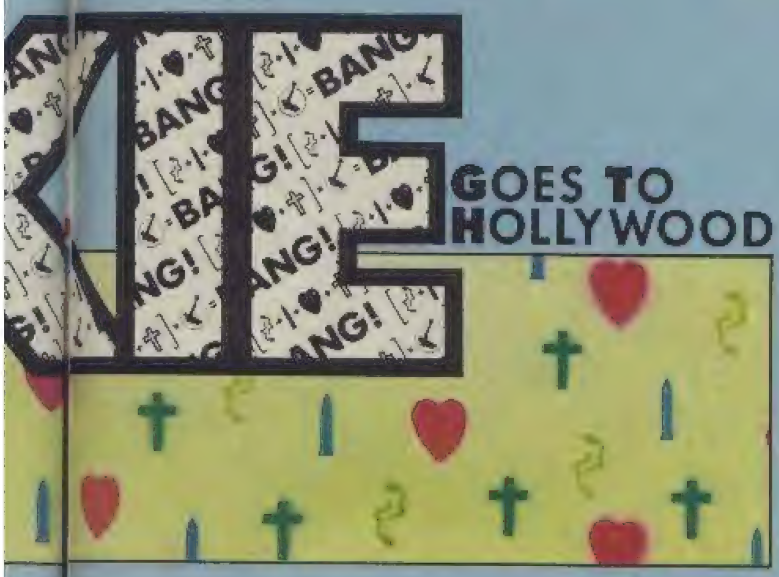


Daley Thompson's

SPECTRUM 48K · COMMODORE 6



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SO YOU THINK YOU'RE A HIGH-SCORE HERO?

Well now's your chance to prove it, in Part Two of the Bubble Bus Wizard's Lair Challenge.

Crash Competition

You'll remember in last month's CRASH we interviewed STEVEN CROW, the programmer behind the CRASH Smashed WIZARD'S LAIR. Well (it's catching you know), well, by the time you read this (unless you're very quick off the mark indeed) we'll have sent out the prizes for the joystick interface competition sponsored by BUBBLE BUS and RAM in the April Issue.

Now we come to Part Two of this whizzo comp — the High Score bit. Entering couldn't be simpler — all you need to do is play Wizard's Lair till your joystick goes up in smoke, and achieve a super mega-high score. Write down the score you get at the end of the game — the one you can enter into the high score table. Rather than send it to Lloyd for his Slime Corridor thingy, pop it into the post marked BUBBLE BUS 2 COMP. PO BOX 10, LUDLOW, SHROPSHIRE, SY8 1AQ to arrive before May 30th.

There's really no point in cheating — Steve has written a special High Score validating program for us to use, and all we've got to do is run your score through one of the office Spectrums and it'll sort out the fibbers tout suite. So don't try it on OK?

Top prize, for the ace slimester on WIZARD'S LAIR is the framed artwork for the WL cassette inlay, which will be presented to the winner in person; flashbulbs will pop and immortality will be achieved for the lucky winner in our news pages. He or she will also pick up a T-shirt and a copy of Bubble Bus's other program for the Speccy — HUSTLER.

And they're a generous lot down at BUBBLE BUS HQ — no less than nineteen runner-up prizes are also on offer for high scorers who don't quite make the Supreme Champion grade.

What are you waiting for, get playing!

CRASH COURSE

CHIPS WITH EVERYTHING

by Rosetta McLeod (with Daniel Fenn, aged 4 and David McLeod, aged 6)

Imagine the scene:

Monday, 9 am. The week begins. Father kisses Mother goodbye and goes upstairs to the office — it used to be the spare bedroom. He sits at his desk, keys his password into the computer, and his day at the office begins. Mother, meanwhile, is chasing up her elder son, Zizzz, who is toying with his perfectly nutritionally balanced breakfast biscuit. She finally packs him off to his studies — in what used to be the family dining room.

Zizzz sits down at his VDU, selects the word processing chips, and transmits his history essay on fire to his personal educationalist.

Next, before she activates the micro-chip panel controls for the washing machine, dishwasher, robotic vacuum and automatic window washer, Mother deals with the baby of the family, Xon, aged three. She carries him into the living room, and pops him into his playpen in front of his own kiddy komputer. Having inserted a variety of discs into the multi stack disc drive, she can relax until lunchtime, safe in the knowledge that her younger child's pre-school education is in expert hands.

An exciting vision of the future? A dehumanising picture of the micro-chip age? Whether we like it or not, the micro revolution is in the process of altering our whole concept of education, and it may not be too long before we have to face the possibility of children being educated 'at a distance'.

One of the most frightening aspects of the present world for me as a teacher, is the fact that educational experts are losing control over the rapidly expanding market of educational software. Teachers and parents are now being dictated to by the producers of such software who are concerned mainly with commercial rather than with educational interests. Yet the two need not be separate and incompatible.

This month, the software I have looked at falls into two categories.

1) Games designed by educational experts who have begun by clearly identifying their aims and objectives, and who use the games format as a means to achieve a worthwhile end.

2) Games brought out by software houses who have tenuous — if any — links with the world of education. These designers seem to begin with the games format, and then attempt to superimpose their sketchy ideas of educational aims, often based on their own (outdated) experience of the education system.

But how can parents, visiting their local software shop, make the best selection when choosing educational software? Unbiased magazines can be helpful, of course, but parents would be well advised to read the cover blurb very carefully on software to ensure that the programs have been both designed by educational experts in the first place, and have also been tested by teachers in the classroom. This test will not be foolproof, but it will be a move towards ensuring that the proliferation of rubbish stays where it belongs — on the shelves.

The most effective use of educational programs, particularly with younger children, is in situations where an adult — teacher or parent — is present to discuss the game and give help if necessary. The child can then be guided towards related areas of activity, or encouraged to read round the subject, and thus the educational content of the software can be supplemented. Much educational opportunity will be lost if the child is left to play the game alone.

ALPHA-BETH

Producer: A & F Software
Memory required: 48K
Retail price: **£5.75**
Age group: not specified but probably 7 and over

First we had the 'compu-novel' from Melbourne House, now we have the 'arcational' game from A & F. *Alpha Beth* is supposedly a 'new concept in computer games'. The cover blurb tells us, with interesting use of grammar and punctuation, that 'you find yourself stood on a computer keyboard, the VDU is displaying a question which you must answer! once you have the full answer typed in, you must jump on the enter key dead easy!!!'

These language errors did not inspire initial confidence, and having tested out the game, I can safely say that this really is one of the poorest 'educational' programs I have seen.

Mike Fitzgerald from A & F who had the initial idea for the game, told me that its main purpose was to increase general knowledge through what is basically rote-learning, which he described as 'a well tried philosophy', and he added that his wife, a former teacher, had tried out the game and was happy with it. Surely this is the wrong way to go about devising an educational game?

Alpha Beth is really nothing more than an arcade game with a vague educational aim superimposed upon it. The player has to answer questions like 'which famous queen of Egypt killed herself with an asp?' and 'where would you go to watch a play?' As you move Alpha-Beth around the keyboard, spelling out your answer, you have to watch out for hazards like the school bully and the flying dictionary. If you don't know the answer to a question, you can press the cheat key which will display it briefly on the screen.

There may still be a place in education for general knowledge games like this, but it seems to me that non-specialist designers of educational programs have to remember that the school curriculum has changed vastly since they were pupils.

A & F have also published *Alpha Gen*, which is a database generator for *Alpha-Beth*, and this may be useful for certain subject areas (or, as Mr Fitzgerald pointed out, for parents who wish to devise their own quizzes for in-family). I would love to hear from any parents who use it!

COMMENTS

Control keys: O/A up/down, O/P left/right, M to select (the keys can be redefined)
Keyboard play: good response
Use of colour: good
Graphics: not very imaginative
General rating: poor. It annoys me greatly when so-called educational games feature errors of grammar, spelling and punctuation. If, for instance, the player cannot answer a question and selects the pass key to go on to the next one, the computer responds with 'Too hard for you? Your *(sic)* not trying'. In *Alpha-Gen*, too, we are informed that 'The instructions that follow can for your convenience *(sic)* be printed out'.

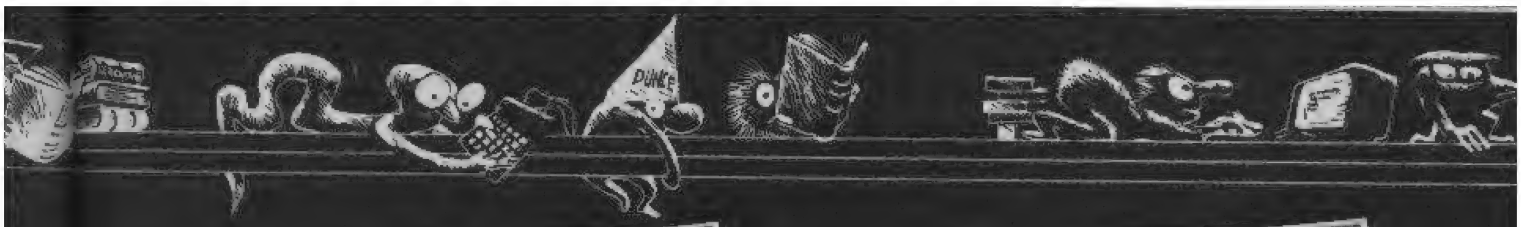
CASTLES AND CLOWNS

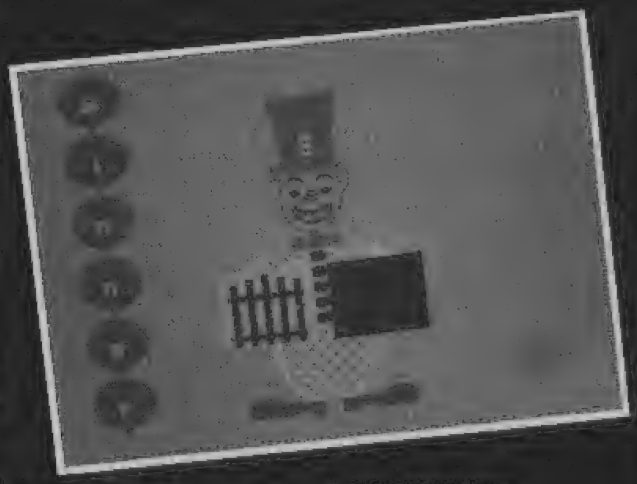
Producer: Macmillan Software
Memory required: **48K**
Retail price: **£5.95**
Author: **Betty Root**
Age group: **4-8 years**

When I see games devised by Betty Root, as the two in this package are, I can be pretty sure that they will be worthwhile. Miss Root is in charge of the Centre for teaching of Reading at the University of Reading, and is well-known to teachers for her educational games for young children.

Castles and Clowns is a package of two games which have been devised to help children from around four years of age to recognise initial sounds and letters of words, and in so doing gives players practice in finding their way round the computer keyboard. Each game can be played by two players or by one player against the computer, and both games allow the user to choose a speed of play from 1-9.

In King of the Castle pictures appear in the numbered windows of a castle, the computer





displays a number at random. The player must then enter the initial letter of the name of the object displayed in the window with that number. The correct choice closes the window — and the winner is the first to shut all his or her windows. In Clowns, pictures are flashed onto the screen on either side of a clown, whose hat displays a letter. The player has to indicate whether the object flashed on the screen has a name beginning with the letter on the hat — winning a balloon for the correct choice, and losing one for a mistake.

My assistants found the games quite challenging. King of the castle is especially tricky, as the players have to find their way around the QWERTY keyboard. Daniel succeeded at Levels 1 and 2, but thereafter the pace became too fast for him. In fact, even I was not much use at Level 9. One of the good points about both games is that they involve an element of chance as well as skill, so children of different ages and abilities can play together.

COMMENTS

Control keys: in Clowns, A and ENTER are used. King of the Castle requires the players to use the keyboard to select the appropriate letter.

Keyboard play: very responsive at all levels. It is also possible to break out of the games at any point to return to the menu.

Use of colour: simple, but effective.

Graphics: again, simple but clear.

General rating: good, well thought-out games which appeal to young children and which have a clear educational aim.

LEARNING WITH LEEPER

Producer: Software Projects
Memory required: **48K**
Retail Price: **£9.95**
Author: **based on Sierra-On-Line's American versions**
Age group: **3—6 years**

I had seen the advertisement for this package in a woman's magazine before the game arrived on my desk. Having noticed with interest the claim in the advert, 'No adult supervision required', and having formed the mental picture of a child with his new baby-sitter, the computer, I was keen to try out this package with Daniel and David.

The write-up on the attractive packaging boasts that '*Leeper* leads children through four word-winning pre-school games that prepare them for reading, writing and maths'. We are told that *Leeper* has won 'a CES Showcase Award, Electronic Games Best Computer Educational Game Award, and a Parents' Choice Award'. All of this might seem impressive to the prospective purchaser, but beware! Are we informed that the games in this package have been designed by educationalists? No. Are we told that they have been approved by practising teachers? No. It was with a fair amount of scepticism, therefore, that I began to test out the games.

'Dog Count' is a very simple game in which the player has to choose the correct number of bones required to feed a number of dogs which appear on the screen. If the child succeeds, the dogs stand up and wag their tails.

In 'Balloon Pops', the player has to manipulate a balloon to lift crates with letters on them up to a ledge to match up with a given letter. If the child gets it right, a tune plays and the balloon sails away with the letter. All the letters used are capitals — lower case letters would have been more appropriate, for the simplicity of the game makes it more suitable for the very young child.

'Leap Frog' is a dreadful game in which the player has to manipulate a frog through a maze and avoid being caught by a chasing centipede. Unfortunately, the game is boring, in that if the frog is caught by the centipede, nothing happens.

'Paint Box' is a good idea, which doesn't quite come off. The screen displays a picture of a house, and the child has to use the cursor to select between different colours, and paint in the various areas of the picture by positioning the cursor over them correctly. Both Daniel and David found that the cursor is very difficult to control — it moves far too fast at the merest touch, and even I had problems with it. Another problem is that the colouring in of the different areas does not occur uniformly, so that gaps are left which are difficult to fill.

Both children quickly lost interest in the games contained in this package, and a parent leaving their child to play unsupervised would not win much of a respite before the youngster complained of boredom.

I contacted Software Projects to enquire about the awards the package had won, and was informed that they were American awards, and that the Showcase Award was from the Consumer and Electronics Show in Chicago. The four games have apparently been published in the States for the Commodore 64, Atari and Apple, and Software Projects have converted them to run on the Spectrum. The spokesman for Software Projects admitted that this Spectrum version had not been tested out in schools, and he could tell me nothing about the original designers, or about the educational ideology behind the games.

Having said all that, however, Software Projects are to be commended for being prepared to offer the tape on fourteen days free home trial. Their research has indicated that Mums' initial reaction tended to be in favour of buying the game, but Dads were more likely to say that they would copy it.

The package actually comes with a colour-coded key in card to discourage copying, but frankly, having tried out the four games, I would not want to bother.

COMMENTS

Control keys: Q/Z up/down, I/P left/right, N select, for young children, it would have been easier to use the arrow keys. There is, however, a joystick option.

Keyboard play: very responsive, though in Paint Box, it is too responsive, making the cursor very difficult to control.

Use of colour: simple, but very clearly defined.

Graphics: again, simple but clear.

General Rating: rather dull and uninspiring.

THE BOYS FROM BUZBY . . .

'Seeing is believing' is Firebird's catch-phrase, and since they've had no less than three CRASH SMASHES in the few months they've been operating, we thought it was about time we went to their London HQ and saw for ourselves. Accordingly, the tea kitty took yet another pounding to fund a trip to the heart of London's theatreland where 'The Boys from Buzby' have their perch. . . .

AS A SOFTWARE HOUSE, FIREBIRD is a little unusual on two counts: first it has a complete range of 'budget' games which sell at £2.50 and are rather more polished than a lot of the software at the cheaper end of the market; secondly, they are owned by British Telecom. It's not immediately obvious why BT should wish to be 'The Power Behind the Joystick', but given their involvement in electronic publishing via Prestel (where there be Micronet) and Gamestar, actually producing software for sale in shops is not that illogical a move for the company. Dr Ederyn Williams, the General Manager of BT's New Information Services Division set up Firebird in the Spring of 1984, and in May they started advertising for programs. The rest is rapidly be coming history.

Nearly two thousand programs arrived for evaluation during the first three months of Firebird's life, and **Tony Rainbird** was persuaded to leave his own software label (Micro-Gold) and join Firebird to get the ball rolling in June. **James Leavey**, who came from within Telecom, was signed up on internal transfer (he's very coy about the fee!), and began work in July on the Public Relations/Promotion/Advertising front.

During the summer of 1984 a lady by the name of Theresa Jackson, a marketing analyst, profiled the software market on behalf of Firebird. The early 'gut feeling' that a two tier pricing policy, with a Gold and Silver range would be the right approach was proved to be sound by her research. Firebird had to decide whether to jump into the market in time for Christmas, or wait until the 1985 season. They jumped in, having made decisions about prices, distribution and promotion during July.

From the start, Firebird has taken an honest approach — a 'Plain Jane approach' as one of the sexist pigs (who shall remain nameless) described it! None of this £2.99 lark to try and lull people into thinking they are buying a two pound game when they're really shelling out three quid.

'We could see that customers were getting disillusioned by some games, with hyped up artwork on the cassette inlay, and over the top claims in the blurb. Often, when you go into a computer shop the sales assistant won't let you load a game before you buy it, and it's clear that people could be disappointed by games they bought once they've got them home and started playing them. We decided to feature actual screen shots on the front covers of our Silver Range cassettes — our budget collection — and it is the distinctive mark of the Firebird range. Other people followed our lead,' James Leavey explained.

And there is little doubt that Firebird have had quite a marked effect on the budget software market. 'Affordability' is the underlying principle of the Silver Range, and each title within their portfolio is carefully polished before release. 'We feel that budget software opens up the market' Tony Rainbird chipped in, 'we realised that there are two ends to the market, and that budget software is going to be a growing area. Just because a game is cheap doesn't mean it has to be tacky — and it should still be good value for its price'. With *Booty*, a twenty screen arcade adventure, Firebird hit it right — their first CRASH SMASH was included in their initial handful of budget games released for the Spectrum, and has just passed the hundred thousand sales barrier.

'We took the initiative with budget software. Having decided that last summer was the best entry point to achieve sales turnover and promote the Firebird name, we set about creating acceptance with the retail trade.' Any software company which achieves sales of a quarter of a million titles within ten weeks of launch, can clearly claim to have 'created acceptance' with the shopkeepers and games players. The team behind Firebird are naturally well pleased with their efforts.

'Obviously on a £2.50 game there's not so much money available to the retailer per tape sold as there would be with a £7.95 or £9.95 game', Tony continued, 'but we pointed out that a smaller profit per game, when it was achieved on a high volume of sales, could result in a larger profit overall.' It's the Supermarket versus corner shop principle, in effect. If you can sell a hundred tins of beans and make 1p profit on each one, it's better than selling ten cans and making 5 or 6p a time.

But was it just another case of a mega-corporation realising the potential of getting involved in the games market?

'Just because we're part of British Telecom people have this image of us as faceless bureaucrats, having endless meetings. If that were the case, we'd just never get anything done. We are serious about the business side of things — but not always about the software', James Leavey explained. 'We're a profit centre, not a British Telecom Flagship', Tony added, 'obviously we've got the backing of British Telecom, and are part of a very large company, but we still have to work within budgets. We have to make money, not pour it down the drain'.

The Silver Range will always contain games for the non-specialist, non-dedicated games player, and the aim is to keep twenty-four different titles in the portfolio of budget software at any one time. Every three months or so, Firebird plans to change eight or twelve of the Silver games, replacing the titles which are selling least well — or just introducing better games to improve the overall quality of the range. (Lloyd Mangram should have details of the latest changes scheduled in 'Merely Mangram' this issue). With versions of some games available for more than one computer, it won't be long before Firebird has a product range of some fifty items.

'We have no plans for compilation tapes in the future apart from a one-off which we'll tell you about later, but we may well take on games produced by other software houses which haven't achieved their full potential — perhaps games which have been sold at a higher price, and have exhausted the market at that level. We will continue to promote our budget range positively as budget titles, continuing with our 'full frontal' approach,' Tony explained.

With the advent of Shuttlesoft, set up by Mastertronic to specialise in distributing budget software, Firebird is likely to continue going places in the budget software market - other than Mastertronic, Firebird is Shuttlesoft's only supplier. Mastertronic's M.D., Martin Alper, has gone on record as saying that Firebird is the only budget software company likely to stay in business — apart from his own firm, of course!

Firebird's Gold Range, which so far has seen two CRASH SMASHES in three releases (*Gyron* and *Buggyblast*) also seems set for success. **Herbie Wright** joined Firebird in the New Year to become Project Manager for the Gold Range, leaving James Leavey as Mr Silver.

'A Gold game has to be special', Herbie stated. 'it's got to have Ingredient X'. We've not got a schedule of releases for the Gold Range — each program is a one-off, and we will release as many or as few as are justified by the quality of the programs.'

Demons of Topaz for the Commodore 64 and the CRASH Smashed *Buggy Blast* for the Spectrum were the first two Gold Editions. Retailing at £5.95, they are low-priced games, given many of today's prices. *Gyron*, the latest addition to the Gold Range will sell for £9.95 — and there's a Porsche up for grabs for the first person to complete the puzzle. *Elite*, which should be on the streets as you read this, is available for the Commodore 64, on disk, at

'Mr Silver' - James Leavey

'Mr Gold' - Herbie Wright

Tony Rainbird

£17.95. (Full details of this whizzo game can be found in our sister magazine, ZZAP 64!.) *Elite* should be available on the Spectrum in late summer, but the price has yet to be fixed, and the conversion completed.

Herbie has responsibility for the production and marketing of the games for the Gold Range, having joined Firebird from VNU. Each Gold Game is treated as a separate project. 'We polish each Gold Game to a very high level before we release it, and use expensive artwork to promote it,' Herbie explained, 'Some will include prizes, like *Gyron*, which has to be reflected in the price. We haven't set a uniform price for the Gold Collection in the same way as we have for the Silver games — each game will be priced according to its value and the level of effort involved in programming it. *Gyron*, for instance, was written by a team of programmers, and took the equivalent of four man-years to complete. At £9.95, including the chance to win a very expensive motor car, it's hardly overpriced.'

'We won't put out anything that's half-baked in the Gold Collection', Herbie assured us, 'each and every program must be full-baked'.

So how does Firebird get its programs written? British Telecom has vast experience of working with computers in the business and telecommunications fields — does Firebird have a pool of Telecom talent to draw on?

'We haven't any in-house programmers', James explained, 'all our programs in the Gold Collection come from software houses or groups of programmers working together on a project. The Silver games generally come from freelance programmers. We will back programmers with loans for equipment, and by paying them a proportion of the royalties for a game in advance — but we have no plans at the moment for staff programmers.

'Some programs come in as storyboards rather than completed programs, others are virtually complete. If we're commissioning a program from storyboards, we'll monitor the design while the code is being written. From the original design stages to about half way in the coding process, we leave our programmers to get on with the job. At the later stage we become involved in the run-up to the final product.'

Firebird's plans do not include utilities in the short term: 'At present we don't have the staff to support technical enquiries, which is vital if you are going to publish utilities properly,' Tony Rainbird commented, 'obviously we've got people in the office who can write code, but they're busy enough as it is!'

'Alternative Entertainment' and Educational Programs are the two directions in which Firebird plans to move over the coming months. Despite being pressed, Tony wouldn't reveal what he meant by 'Alternative Entertainment' — so we'll all have to wait and see! He did, however, let slip that Firebird will probably be publishing a certain music program the rights to which have been acquired by the Big F — possibly in a slightly different form to the one it's Xoready in! Check this month's Tech Niche and place your bets. . . .

Stumping out of Telecom Towers into a grey drizzle after the interview was over, I was left with a distinct impression: the reality behind Firebird is quite the opposite of the 'faceless bureaucrats' image that it is easy to associate with a large corporation moving into the software market. James and Tony have become used to working long hours, and the whole team's commitment and dedication shows through. There's the same atmosphere of enthusiasm and interest in Firebird's offices as you would find in any small software house. And they have a lot of fun too!

They don't lack a sense of humour either — the release of a tape called 'Don't Buy This' is imminent. A compilation, containing a number of games which didn't quite make the Silver Range, DBT is going to be a masterpiece of anti-hype. The cassette inlay blurb suggests that the tape would make an ideal blank, if you cover over the lugs, and reminds potential purchasers that Firebird takes no responsibility for the total unplayability of the games it contains. Ironically, the mob at Firebird have still put a lot of effort into putting their polish onto these rotten games. Well, not so rotten, just a bit Naff as the trendies would say.

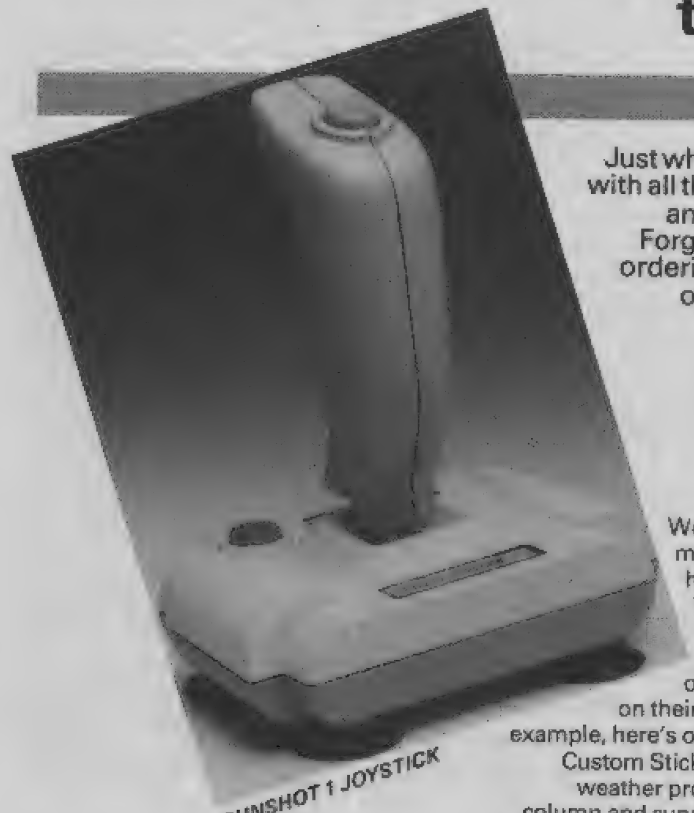
What the big cheeses at the top of the Telecom Tree are going to say when they see 'Don't Buy This' is anyone's guess.

Shortly before this piece was written, James Scoular, the head of Firebird, died in hospital of a heart attack. Before joining Firebird, James was the publisher of *Personal Computer Games* magazine. His contribution to both sides of the software business has been considerable. His expertise and ready sense of humour will be deeply missed, not least by the members of the Firebird team, who attribute much of their success to James' drive and ambitions for the company.

VULCAN ELECTRONICS LTD

BUILD A BES'

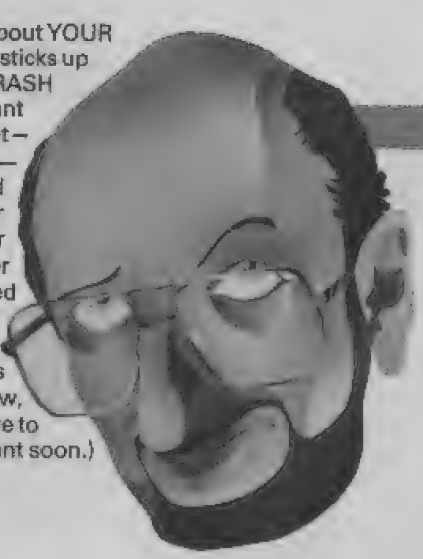
Produce a Personalised Perie together with a SpectrumIn



GUNSHOT 1 JOYSTICK

Just what you've always dreamed of? A tailor-made joystick, with all the additional features you could ever want including an on-board cocktail cabinet and dayglo Dralon finish? Forget it . . . you're not going to have me running around ordering yards of costume fabric to build you the Joystick of Your Dreams, not until I get a new jumper anyway. But (and this is no little but) there are ten VULCAN GUNSHOT I joysticks together with Spectrum interfaces up for grabs in this competition. Not to be sneezed at eh?

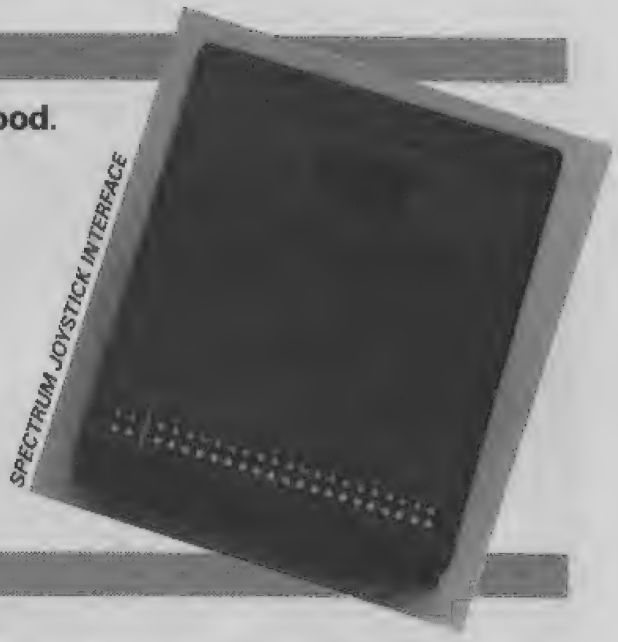
We don't want to hear about YOUR miserable little ideal joysticks up here in the draughty CRASH Towers, oh no. We want you to tell us the feat—ures that some fam—ous people might need on their custom joysticks. For example, here's our C21/2, the Sinclair Custom Stick with special designer weather protection, knee operated column and cunning dead-pigs-noses fire button action. (This is the sort of thing that happens when the Olibugs ask if they can help-:. . I don't know, I'm going to have to get a proper assistant soon.)



SPOKE JOYSTICK

ripheral and win a Gunshot joystick n Interface

Crash Competition



Right. So now you've got the general idea? Good.

Here's a list of five famous people:

- ***PRINCE CHARLES***
- ***STEVE DAVIS***
- ***MICHAEL JACKSON***
- ***DARTH VADER***
- ***MARGARET THATCHER***
- ***PAUL DANIELS***

We want you to use your 'wit and imagination'. Design a customised joystick which has the five special features that each of these wonderful human beings would insist on incorporating in their personalised peripheral.

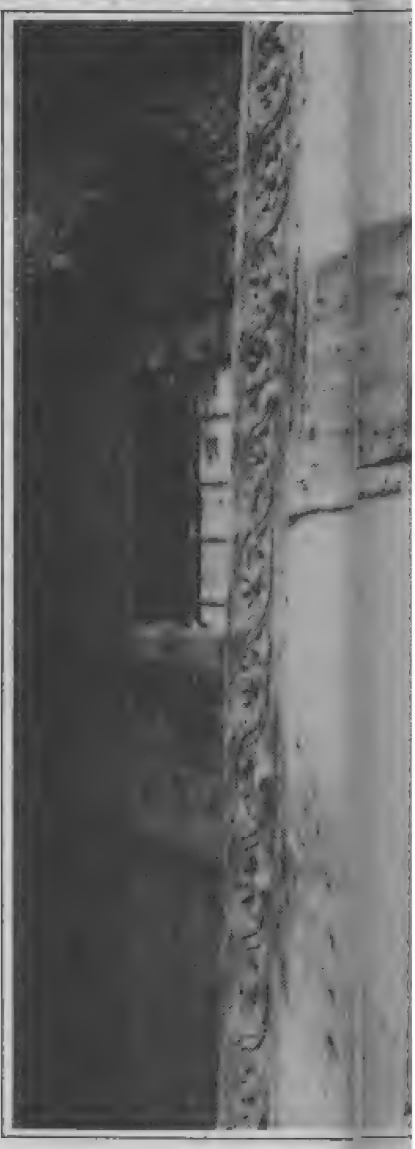
You can just describe the six custom sticks if you like, or you could do a sketch of each one, arrowing the special features like we did with the CLIVESTIK, or you could do a painting in full colour using the latest airbrush technology. It's entirely up to you.

Get your entries to **CUSTOM JOYSTICK COMPETITION, PO BOX 10, LUDLOW, SHROPSHIRE, SY8 1DB** by first post on **May 30th** and you could be one of the lucky ten winners to pick up a prize donated by those nice fellows at VULCAN, who are rapidly making a mark for themselves in the micro industry with their range of joysticks, interfaces and other computer goodies.

VULCAN ELECTRONICS LTD
Joystick Genius

Shortly before the first ever issue of CRASH, **Ian Andrew** *of MINED-OUT (Quicksilva) fame, was promised a CRASH profile in the mistaken belief that at 21 he was among the youngest Spectrum programmers of the day. A month or so later he politely informed editor Roger Kean that he was quite a bit older than 21 — but that wasn't the reason the profile never happened! GRAEME KIDD now puts the matter to rights. . . .*

MINED-OUT AND CONFUZZZED



BETCHA don't know what a deltiologist is? No? Well Ian Andrew of Incentive Software does, because he used to be one! That was a few years ago, mind, when he had his first business - selling postcards to collectors. He started out with a couple of filing cabinets in his bedroom and then moved into shop premises in his home town of Reading as the volume of trade grew.

Ian was amongst the first people to buy a ZX81 — he saw an advertisement for the machine in the Daily Mail, and rushed his money off. He played around with the computer in his spare time, and without any formal training he learnt the ins and outs of BASIC. By the time the Spectrum was launched he was hooked on programming.

Ian was an early Spectrum user — his machine was Number 638. He was an early Spectrum games programmer too, writing a number of fairly simple games for his own amusement — which he's still got copies of, for sentimental reasons!. Ian's first commercial game was the sixth or seventh program released by Quicksilva; called *Mined-Out*, it was written entirely in BASIC.

'Mined Out was deliberately different to the games available for the Spectrum in those days,' Ian told me, 'generally games only had one level and just got faster the longer you played them. I wrote Mined-Out as a one-level game originally and my mother tested it out for me. Quite soon she had mastered it, so I added another level and it went on until there were eight levels in all.

'The games industry was just taking off then, and when I saw an advert placed by Quicksilva for programs I sent them Mined-Out. They published my version for the Spectrum, and soon my brother had written a version for the Dragon; Ian Rowlings converted it for the BBC — and versions for the Lynx and Oric were also written.

Ian decided to get involved in the software business, and quite soon he was running Incentive Software from his shop premises, having sold off his postcard interests. An advertisement in the Reading local paper for a machine code programmer brought Ian Morgan into the Incentive shop, and work began on *Splat!* — the first Incentive game.

'Incentive was chosen as the company name because it was decided to offer an added incentive to people who bought our games. *Splat!* had a £500 prize for the highest scorer, and the program included a score validating routine. We've continued to live up to our name, offering extra incentives with our games in the form of attainable prizes. I get annoyed when people accuse us of jumping on the prize-giving bandwaggon. *Splat!* was the first game to offer a prize. 'All Incentive's prizes are attainable, and they are all won', he added, making an implied reference to certain whizzo super-prizes that have been offered in the past and never won. 'I did the design for *Splat!*, and wrote the BASIC elements, while Ian Morgan took care of the machine code. For about three months *Splat!* was the only Incentive game. Then we published *1984*, a political simulation written by Rob Carter who is an economist, and *Mountains of Ket* which was written by Ian Morgan's friend Richard McCormack who is a bit of a Dungeons and Dragons freak.'

Mountains of Ket developed into a trilogy while Incentive's shop premises developed into a slightly unusual software company HQ. Apart from Ian, there are two other full-time members of staff at Incentive: Darryl Still who looks after the shop (which doesn't really sell much!) and fights with the administration and accounts; and Dave Baines who is the resident technician-type who loads up the computers and generally helps out packing up cassettes for despatch etc.

'There's a very informal atmosphere in the shop', Ian explains, 'and it has been a definite advantage having a shopfront. Programmers tend to wander in and hang around drinking coffee and playing our arcade machine, which means that the place is a melting pot of ideas. If someone's having difficulty getting a certain routine to work, they can ask around and get a bit of assistance. For instance, the Spectrum version of our latest game *Confuzion* — which was devised by Paul Shirley on the Amstrad — was written by Brendan Kelly. Brendan just popped into the shop one day when he was in town, and we got talking. . . .'

There are no staff programmers at Incentive - all the code is written by freelances who are paid royalties. 'It seems to work very well', Ian commented, 'people are perhaps more enthusiastic if they are in effect working for themselves, and the company helps to get them work too. One of our team, Tag (also known as Philip Taglione), comes from Bradford and he wrote the Powerload code for the Spectrum which is used on *Moon Cresta*. We have done licencing deals with other software companies which has meant more money for Tag; powerload is used on *Doomdark* for instance, and a conversion written by Malcolm Hellon for the C64 is used on *Beach-Head*.

Mooncresta, Incentive's CRASH Smashed implementation of the arcade game is officially licenced from Nichibutsu, the Japanese creators of the arcade shoot-em-up. Incentive bought the rights to *Mooncresta* for all home computers: 'rather than compromise, and change the game around to avoid license problems, we decided to go the full way and create as perfect a copy of the original as possible and acquire the licence through the proper channels,' Ian explained. And versions for the Commodore 64 and Amstrad are already underway.

The Incentive philosophy is to give people as many reasons as possible for buying their games — which accounts for the prizes offered — and also help to reduce piracy. *Splat!*, for instance had a very unusual cassette inlay, which was very eye-catching in shops, and attractive in itself, as well as the high score prize. 'A tie-in to a TV series, arcade game, or film obviously helps sales', Ian said, 'and we have a literary agent who advises us of what is available.' Does this mean that Incentive will be moving into the tie-in market? 'You are only as good as your last game', Ian commented, 'and some companies have done themselves no favours with games-of-the-film. Our tie-ins will stand on our reputation, and will be good games in their own right. If we use the name of a book, film or whatever on one of our programs, it will just be an added reason for people to buy

Nicholas Sack

● Suitably sober, Ian Andrew poses against 16th century Ludlow

it, another part of the marketing strategy. We won't put any less effort into the programming'.

The software industry has grown into big business, from the early days when a few people started out selling games from their back bedroom. There were plenty of opportunities early on, but now it looks as if the bigger producers will be the only ones to survive. 'All aspects of a new game have to be right nowadays', Ian pointed out, 'in the older days you could have a winner which had a couple of good points in the mix of marketing, packaging, sales, programming, artwork etc, but now you have to get everything right. Every aspect has to be "Good".'

Incentive are about to move into new premises — but 'quietly'. There still won't be deep pile carpeting throughout, and it is likely that the coffee machine will be the most important piece of equipment to be loaded onto the van. No VAXes will need to be moved, and they won't be looking for garage space for the company Porsches either! Ian Andrew and Incentive have a modest approach to what they are doing, and their enthusiasm and hard work shows through in their products.

'We're constantly looking for new ideas, new approaches to games' Ian explains, 'we want our games to be playable and addictive, but we also try to make things a bit harder — something different. We wouldn't do a new platform game for instance, after *Manic Miner* and *Jet Set Willy*. It makes our life harder, but when we get there we all get a great buzz.

'By making our games different from the start we run the risk of some initial friction from games players; we have to generate initial interest in playing the game so that people get into it, and then get addicted — this isn't a problem with established formats, like shoot-em-ups, so *Mooncresta* was straightforward.'

Confuzion, the latest from the Incentive stable, follows this innovative tradition. While I was writing this, Jeremy our software review supremo, took a break from looking at the game to open a tin of condensed milk with my letter-opener, and dodging the fine spray of milky mist which threatened to envelop me, I sought his opinion. 'Yes, it's an intriguing and perplexing game', he said, scampering off to the coffee corner, 'it's good'. Hmm. The full review appears elsewhere in this issue.

Incentive certainly seem to have got the mix right — and Ian feels himself to be very lucky, based in Reading where there is a good pool of talent to draw on.

'Personally, I'm more keen on the design side of games programming', Ian said, 'and I'm hardly doing any coding myself at the moment — apart from the odd little machine code routine. I'd like to write a game myself again, but it'd be a matter of sitting down for a couple of months and proving I can still come up with the goods! In effect I'm now acting as 'producer' on our games, liaising with distributors, freelance programmers, dealing with the advertising and publicity and sorting out license deals etc. It's a lot of fun, and there's a lot of satisfaction to be gained from doing things yourself, but I'm booked up solid, seven days a week for the next fortnight. At times it's difficult to find time for the 'normal' things in life. It's hard work, but it's rewarding.'

And on that note, Ian Andrew, the CRASH-Styled 'Big Cheese' of Incentive Software had to leave, piloting his humble Fiesta homewards. . . .

Crash Competition

BANG THE BOMBS

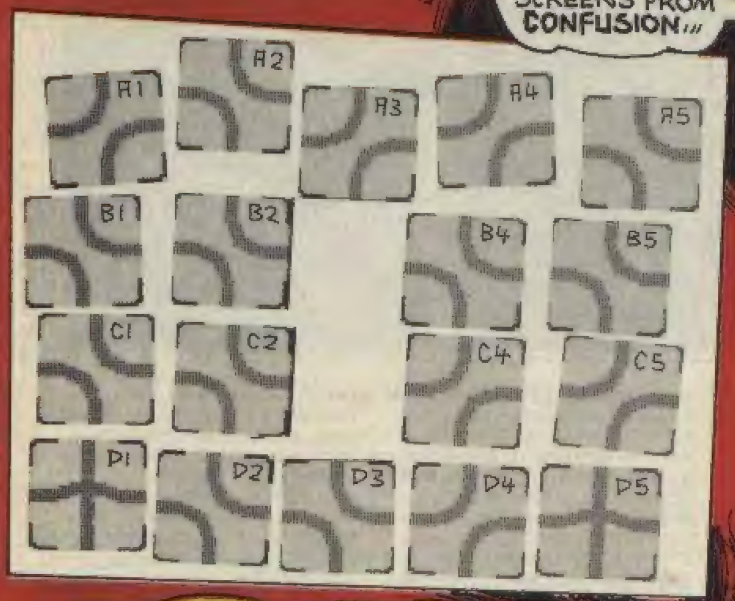
AND WIN A CONFUZION SWEATSHIRT

ANARCHIST PETE - GREAT-GREAT-GREAT-GRANDSON OF GUY FAWKES HAS SET A PUZZLE BASED ON CONFUZION - AND HE'S SO CONFIDENT THAT CRASH READERS CAN'T SOLVE IT, HE'S PAID INCENTIVE LOTS OF MONEY (OBTAINED, NO DOUBT BY DEVIOUS MEANS) TO MAKE 40 SWEATSHIRTS - WHICH WILL BE GIVEN AWAY TO PEOPLE WHO CAN COME UP WITH A SOLUTION...

CONFUZION RULES O.K.

HERE'S A REAL LIFE SCREEN SHOT OF ONE OF THE SCREENS FROM CONFUSION...

FIRST YOU NEED TO MAKE A CUT-OUT-AND-KEEP PUZZLE TO PLAY WITH, USING THE NUMBERED TILES ON THE LEFT, OR A PHOTOCOPY...



NOW, YOU ALL KNOW HOW A BLOCK PUZZLE WORKS, ME LOVELIES, DON'T YER? NO CHEATING! YOU CAN'T PICK THE TILES UP AN' PLONK 'EM DOWN WHERE YOU WANT 'EM - TRY IT, AN' I'LL PULL YOUR LITTLE PINK FINGER-NAILS OUT ONE BY ONE! SLI-I-IDE 'EM ROUND ON THE TOP OF YOUR TABLE OR SLAB OF ICE COLD MARBLE. REMEMBER NOW, YOU CAN ONLY MOVE A TILE INTO AN EMPTY SPACE, AN' THERE'S A WALL ROUND THE EDGE - SO DON'T TRY MOVING TILES THROUGH IT! TOENAILS OUT IF YER DO! AN' ONLY MOVE ONE TILE AT A TIME!

NOW THIS IS YER INTERLECHERAL CHALLENGE - CAN YER LINK UP THE FUSE SO THAT ALL THREE BOMBS ARE JOINED TOGETHER!

BETCHA CAN'T! BETCHA CAN'T!!

SLIDE YOUR LITTLE BLOCKIES ROUND, BOYS AN' GIRLS, AN' IF YOU MANAGE TO LINK UP THE BOMBS WRITE IN AN' TELL ME. BUT I WANT PROOF, ME LITTLE GREEBLIES, REAL 'ARD PROOF - NO MUCKING-ABOUT PROOF THAT YOU'VE DONE IT! I AIN'T AS BELIEVIN' AS THAT NAMBY PAMPY MANGY MANGRAM WITH HIS HALL OF SLIME! I WANTS TO KNOW HOW YOU'VE DONE IT, SO FILL IN THIS EMPTY GRID WITH THE CODE LETTERS OF THE TILES IN YOUR SOLUTION AN' POST IT OFF TO:

THE CRYPT, CRASH TOWERS, PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB

MY SOLUTION! HAVE I ENCLOSED MY ADDRESS?

'AN GET 'EM IN BY THE LAST DAY OF MAY - OR IT'S OUT WITH 'EM FINGERNAILS... HEH-HEH!

DEREK BREWSTER'S

Adventure Trail

THE COMMON MARKET

THE OTHER WEEK I was looking around town for a piece of software to buy as a present for a young friend. I dug out past issues of CRASH and checked all the smashes, and one or two not-so-smashing just to be on the safe side. Having spotted a small number which particularly interested me, I trekked off around the overheated megastores and the smaller computer shops and, I know I've said this before, it was a shock to find out how difficult it was to buy the software I wanted. In the past I've kept an eye on adventure stocks in the shops — it was a surprise indeed to find arcade games, supposedly much more commercial, similarly afflicted by the mysterious discrepancy between what the public wants now and what's on offer. On my travels I wondered just how many CRASH readers had trekked dispirited round these stores with little or no sign of the entertainment they were after. It is true that CRASH reviews some games so quickly that time must pass before they reach the shelves, but I did notice one or two very average new games which had somehow dodged the inherent delay in the buying system only to clog up the shelves reserved for the best. In the end the only ones I could spot were the cheaper games from British Telecom traded under the name of Firebird, and I used the change from my purchase to help pay for an evening eating out.

EMERALD ISLE

Producer: Level 9 Computing
Retail price: **£9.95**
Language: **machine code**
Authors: **Shaun Abbott and Pete Austin**

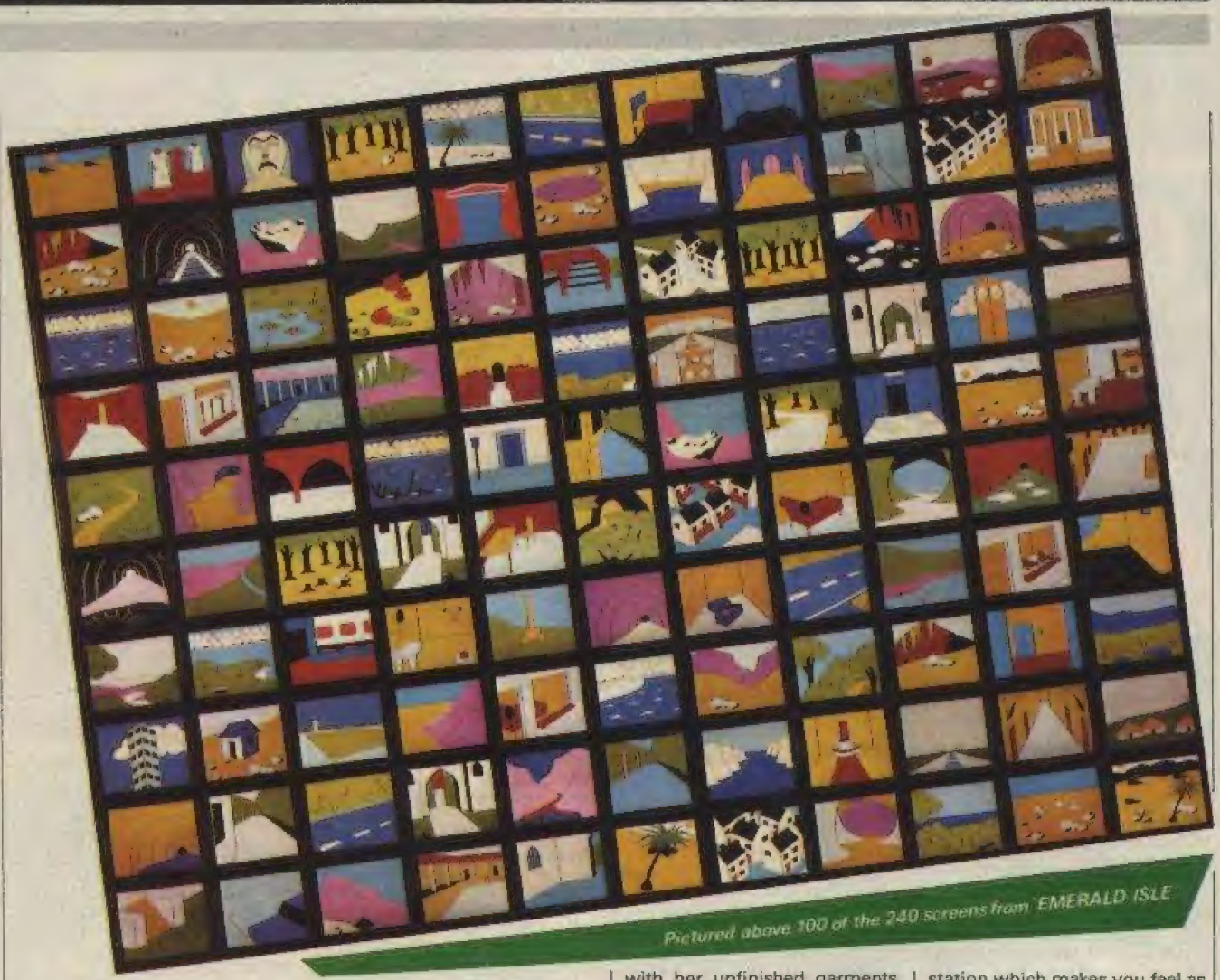
If Level 9 were in the pop world they would be somewhere up there with The Police because their success is grounded in a deep understanding of their subject coupled with an uncanny knack of always remaining commercial. To stay at the top by standing on old successes is not enough, a fact with which level 9 are fully aware, and so here we have their eleventh release and it's not only good — it is perceptably better.

The packaging is now a distinctive trademark; large, crisply printed with the familiar Level 9 logo and that substantive, rather expensive feel. No booklet to wade through this time though, only a few concise instructions on the reverse of a stylish drawing, a half-poster size version of the one on the front of the box. Admittedly art work can be expensive, but when it is of a high standard it really does add to your enjoyment of a game (and arty types always liven up a computer project).

Loading up reveals much made familiar by *Return to Eden* but one aspect is very new. On entering a location a smaller facsimile of the larger picture is very quickly drawn up on the top left portion before expanding to cover the entire width of the screen. The eventual full-sized picture appears to be derived from the smaller by an enlargement brought about chiefly by widening the compact version. It would seem this process aids picture design and implementation though I am not totally sure in what way this is achieved.

Familiar features are the type-ahead, which allows commands to be entered while the program is busy drawing pictures, the A(GAIN) command which repeats the last entry, and the use of IT taken as the previous specified object eg, LIGHT LAMP, then EXAMINE IT. One aspect of the game can slow you up should you be a shade clever with the type-ahead. Although the type-ahead can store tens of moves entered quickly and display their affects as you sit back and watch, the need to press SHIFT whenever a location requires more space for the location description rather negates this. So a modifier is to say you can sit back and watch with your finger on the SHIFT key. All the same, this remains a very impressive feature.

The Emerald Isle is not across the sea from Liverpool (if I were writing for a slick, topicality obsessed magazine I could have contrived something about writing this on St. Patrick's Day — but it isn't, quite). No, this isle is set in that peculiar isosceles, the Bermuda Triangle, a land of mysterious fogs, treacherous waters and lots of angles that never quite add up to one hundred and eighty. Now that I've mentioned the word pecul-



Pictured above 100 of the 240 screens from EMERALD ISLE

iar, it must have some peculiar significance as it is used to describe just about everything on the cover. 'Explore peculiar towns, meet peculiar people, learn the peculiar purpose of the "letters" and travel on a railway which is simplicity itself when compared to BR's peculiar fare system.' Peculiar indeed, but what are these 'letters'? Well, as you go about your travels you bump into the occasional vowel or consonant simply left lying around in your path. A 'W' is discovered cut into a lawn while an 'A' is found hanging in mid-air. Curious, but what we might come to expect from a software team quickly developing an in-house sense of humour nurtured in *Return to Eden*. Anyway, enough of this Salinger-like rambling and back to the plot.

You play the part of an aircraft pilot employed to ferry urgent documents around the Carribbean. Fierce winds seize the plane over the infamous triangle and you escape with your life at the last moment. As you parachute down to the island below you recognise the coastline of the Emerald Isle from an old map. It is a lonely atoll rarely visited and from which none have returned. It is said only one person may leave and that is the ruler of the land. Success can promote an explorer to King or Queen but failure is suitably unrewarding.

You start off with your parachute snagged on a branch of a mangrove tree, leaving you helplessly dangling high above the jungle floor. Escaping this ungainly (and dangerous) predicament, you fall into a mangrove maze which, thankfully, proves simple enough and resolved on a little wandering. Not far to the east you meet the first of many lengthy descriptions. 'You are on the main square of the tree city, standing on a platform of wooden boards between which you can glimpse the twilight jungle below. Light wooden buildings surround the square and walkways lead away in many directions.' And so the story unfolds with the ticket office kindly supplying a season ticket to take you on from the King's palatial surroundings to the more rugged environs to the east of the island. All is dependable, plausible stuff with the odd humorous interlude to lighten the proceedings. Although few obvious puzzles demand attention, and it is very easy to wander around the countless locations, it would be imprudent to assume there is nothing to this adventure. Too many early objects or occurences are enigmatic to believe you have the run of things (eg, the seamstress with her unfinished garments, or the many inoperative doors and barriers) and if you were to check how you're doing, you'd be alarmed at the meagreness of your score.

The game runs smoothly, oiled by an exceptionally friendly vocabulary and a brevity that allows the first three letters of verb or noun or even just WA for WAIT for the train, and A for AGAIN until it arrives. ENT by itself has you boarding the train and merrily on your way. Other refinements become apparent with much play with the charming detail of L and R turning you left and right. The examine command is particularly helpful, giving a response when brought to bear on almost any object — EXAM TICKET gives, 'Looks tatty. It's valid for any one journey — just present it when you get on a train. It's quite small.' In general, the width of response is tremendous, all is intelligent and often witty too.

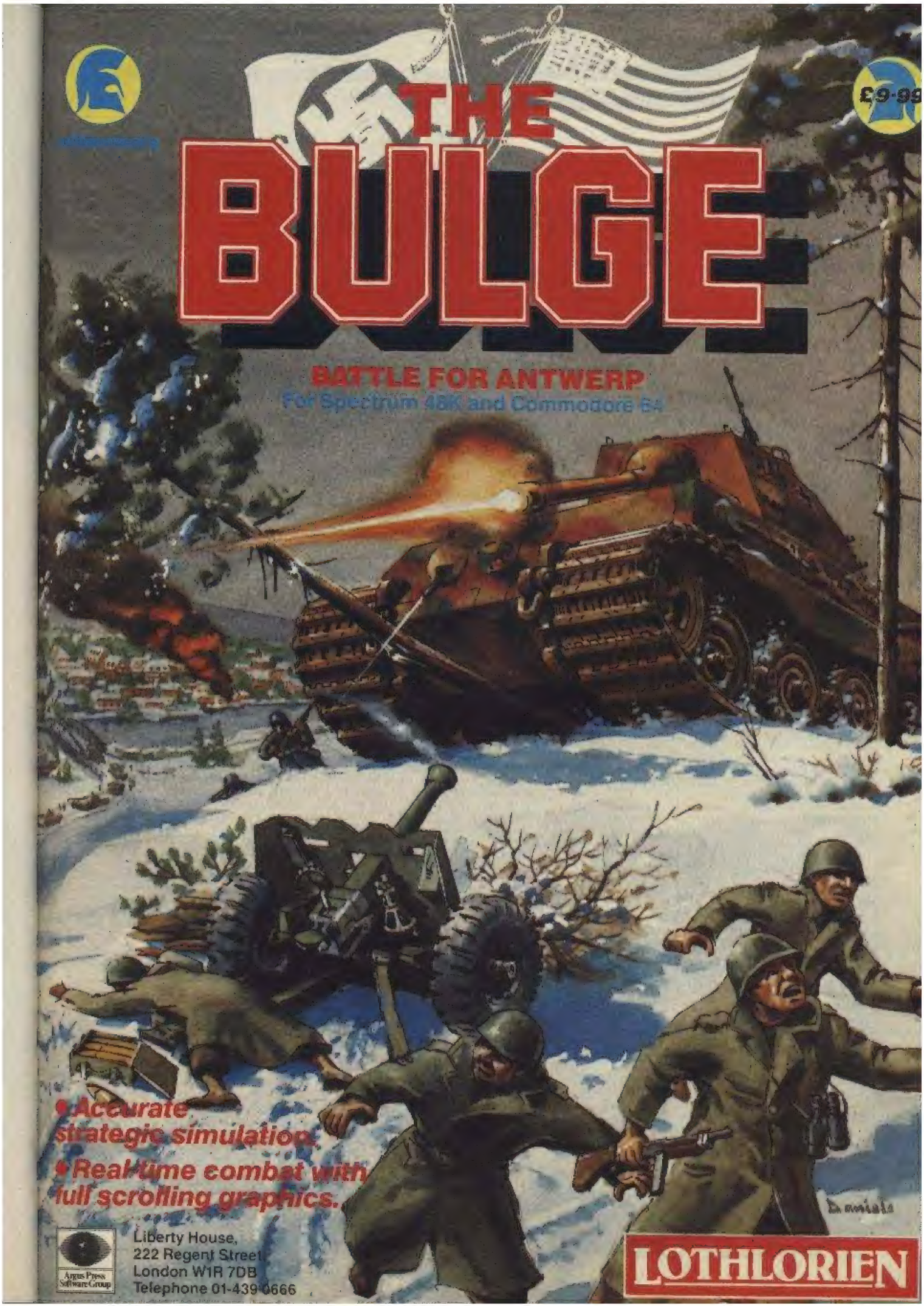
The quality of the pictures varies but there are graphics at each location and many are of a very high standard. As might be expected in a game with over 200 locations, many pictures are repeated or only modified so that three or four patterns become quite familiar after playing for a while. I particularly liked the picture of the railway station which makes you feel as if you really are there. The pictures can be discarded with WORDS when progress is then made rapid, aided by a very sure input making full use of the type-ahead.

Emerald Isle is a game which takes all the best aspects of adventuring and moulds them into a huge, yet detailed story which will have you engrossed for hours. It brings a fresh friendliness to the scene as not only is the vocabulary helpful, the structure is most open and even a beginner will find progress easy, interesting and rewarding. If only more adventure houses could achieve Level 9.

COMMENTS

Difficulty: moderate
Graphics: on every location, large and generally good
Presentation: good
Input facility: verb/noun
Response: instantaneous without graphics, a few seconds with graphics but you can type in while graphics are drawing
General rating: very good.

Atmosphere	9
Vocabulary	9
Logic	9
Debugging	10
Overall value	9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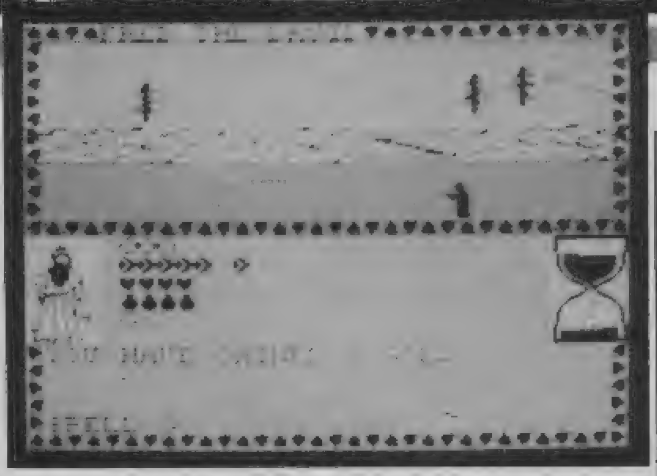
TALISMAN

Producer: Games Workshop
Retail price: **£7.95**
Language: **machine code**
Authors: **SLUG programming co-operative**



Talisman is a computer development of an original boardgame by Robert Harris programmed by a team with the charming name of SLUG (slow, stick to their job, but leave a trail of games on their procession round the software houses)? Reading Angus Ryall's column in the October CRASH I learnt that SLUG left Redshift before they let rent a new improved *Apocalypse*. You know, Angus, reading CRASH is a much easier way to keep in touch with the industry than traipsing round trade fairs. There again, I quite like the idea of producing software as opposed to having to write it. Anyway, let's leave the in-jokes (a sign of moribund complacency) to the music press and get straight into this one.

Talisman describes itself as an interactive multiplayer arcade adventure for 1 - 4 players and the quest is to reach the Crown of Command which rests in a far off legendary place. Finding your way to the crown is made difficult by the array of magical creatures and evil forces who have plunged the land into a deep forbidding fear. Were this not enough, you must vie for the coveted crown and its glories along with your fellow players who all choose a character to represent them on their journey. Characters include an elf, priest, assassin, warrior, thief, sorceress, wizard, ghoul, druid and a troll. Up to four characters can be picked and each can either be controlled by a player or the computer. Indeed, if you wish to see how the game works, you can select four computer controlled characters, select the fastest option and sit back and watch the action — a boon for reviewers. Another way of easing your way into what is a very complex strategy game (the instructions cover five sides) is to have a trial run with just one character.

The instructions have a table which shows the attributes of your chosen character ranging from elf (strength 3, craft 4) through ghoul (4,4) to the likes of a troll (5,3). These values are significant early on when the outcome of a fight is more likely to be favourable if the relevant attribute is greater than your opponent's. If you choose fights with oppenents of similar values the computer tends to err on the side of your assailant and you lose one of your precious lives.

If this review comes over a little disjointed it's because I'm writing LIVE (ie, without a script — isn't this exciting, like The Tube!) trying to look up and see what this computer movie is up to. Right now the troll seems to be doing rather well on his own so I think I'll choose him next time, never know, SLUG may have built in an inherent bias towards the ugly, less appealing figures.

So what do you actually see on the screen? Well the design of the screen is very pleasing and attractive, so much so, I think an automatic game with four independent characters would brighten up the window display of any thoroughfare computer store. In the top half is the movie screen where all the objects, characters and action occur — and I mean action, as the figures rush and lunge at each other emanating the Arrrs and Ugs of the cartoon strip where they meet. The pictures which make up the backdrops are particularly attractive (although not logical as there is no attempt to link them into a coherent geography). The middle section of the screen is flanked down one side by a graphic depicting the character presently playing and an hour glass graphically revealing the time running out on that character's turn. Occasionally messages are relayed to the player in this area, telling of some great evil or good fortune that has fallen upon the character, or offering a choice between, say, a blacksmith's or enchantress's services. Also in the middle area comes the state of play of any fights with either the craft values or strength values of both the player and his attacker displayed.

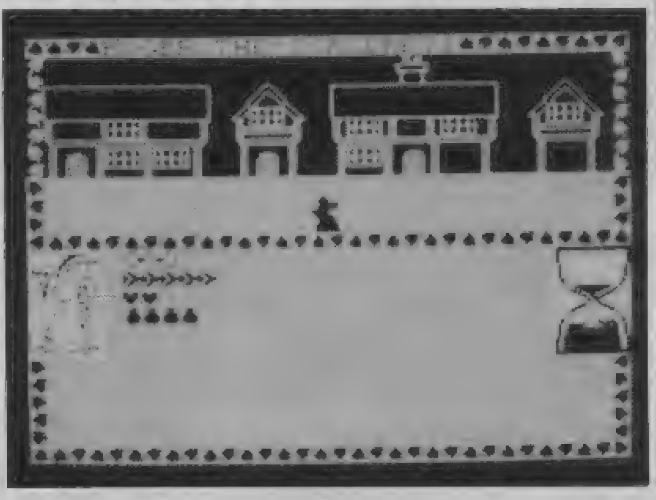
The computer, rather fiendishly, chooses which attribute, craft or strength, is to be used to decide the outcome when an independent character attacks and it's infuriating to see a warrior do battle with craft rather than his innate strength. Having said this, it is not unusual for a warrior to pick up craft on his travels. When other players are in the same frame you can choose to do battle with the added impetus of being able to decide upon craft or strength. After playing for some time you might come across fights which are drawn, leaving both characters standing off each other.

To do battle or to pick up an object, you press ENTER, whereupon either an assailant appears, more or less coming straight for you, or the opportunity to pick an object or visit a blacksmith, enchantress etc appears. An object picked up is displayed on the bottom of the screen but you will have to work out what the stranger designs are for yourself from the list in the instructions as there is no link up between words and graphics anywhere. If a monster should come straight at you, a little time exists for you to make good your escape, an action which must be taken if you glance down to see your opponent's craft or strength to be any greater than your own, as otherwise it will certainly result in a lost life.

There is one other screen which can be called up, showing the status of the character currently playing. This has a summary of everything that concerns that character with an indication whether it is good, neutral or evil, which objects are carried and which followers have sworn their allegiance. The followers are the various maidens, prince and princesses needed to complete the quest; for example, it is possible to get lost lives healed at a castle when accompanied by a prince or princess. Both on the main action screen and the status screen are a set of letters which build up as play progresses. These are spells with the likes of psionic blast, which concentrates your alpha waves into an unstoppable energy beam, and the time dilation, where all other players miss a turn.

Playing the game a lot suggests ways of how best to pick up craft and strength points without forfeiting a life. Moving to one side of the screen before pressing ENTER is advisable so you can see the attributes of your opponent, should one appear, before deciding whether to do battle. If a fight is inopportune you simply press the cursor key to travel into the next frame. Repeating this process can see you picking up many credits while avoiding the worst of the conflicts. Care must be taken, however, in one or two locations where you meet the end of the world. You can become trapped in the Southern Crags where you cannot move off the right hand side and forced to do battle should an assailant appear.

Talisman is a very complex strategy game with superb graphics and all the other trappings of a well designed and highly polished piece of software. Where the game really excels is in its offering entertainment for up to four players which is sufficiently complex to keep all interested for the duration. As with all involved strategy games it will take a while to get into it, but I think the time would be well spent as this game has a lot going for it.



COMMENTS

Difficulty: variable levels
Graphics: good backdrops with horizontally moving animated characters
Presentation: very attractive
Response: fast
General rating: some stones left unturned but well worth checking out.

Atmosphere	6
Addictive qualities	7
Logic	4
Overall value	7

SYSTEM 15000

Producer: AVS
Retail price: **£**
Language: **BASIC & machine code**

In the 60s people used to talk about beating the system. Then in the 70s all estate agents and hairdressers got together and decided escaping the system wasn't such a good idea as they were the system. Now people don't want to escape the system, they try and pretend the whole charabanc never existed and the concept was a Communist plot designed to usurp washing powder sales (everyone knows the Ruskies are at least 15 washes behind when it comes to biologically active washing powders). Personally, I have a soft spot for the 60s — if that was naivety, then I think we could do with some of that just now.

The point is, here come the microcomputers and the robots and yet our society is one of the most reactionary die-hard set of misery guts. It looks increasingly like the wealth from the new industries will be channelled back up into the higher echelons of society taking us, not into a new age of egalitarian prosperity, but to a state reminiscent of the pre-industrial surge of the early twentieth century. It increasingly looks like the only way to stake a claim to the new wealth will be to go straight to the computers and ask for it. So pay attention in computer lectures, especially when you hear of networking and accessing data banks. Another way of learning is to have a trial run with this computer game from AVS for your Spectrum.

Yes, following a controversial book on computer hacking, this is the game of the game that can see lots of digital lolly transferred from some overloaded multinational bank account into your very own diminutive piggy bank. Or, if anarchy is your game, you could always order too few toilet rolls for the Civil Service — a further major blow to morale so soon after the cutbacks forced rougher graded toilet paper upon them.

System 15000 sets you firmly in the middle of an international conspiracy where you have to use your computer to recover £1.5M. The game is a real-time investigation realistically capturing the excitement of accessing computers by telephone and breaking their codes to obtain vital information.

Loading up you meet the SYSTEM screen, and after very little time it guides you, menu-wise, to a series of company and college telephone numbers which include a very realistic ringing tone on entering them. To use the system effectively you need contacts in several agencies and companies. A letter from a friend, Mike, relates the problem to you and gives you some idea how difficult solving it might prove to be.

Richard's company, Comdata, has been ripped off by Realco, a company infiltrated by organised crime, to the tune of £1.5M. The only way to put things right is to transfer the money back to Comdata's bank by getting into their computer with the aid of an ingenious piece of software, SYSTEM 15000. Your first references are a Kingsdown Poly and an LT Perry & Company.

System 15000 is a highly original attempt to bring the excitement of computer hacking home to the average computer games player. It adds the intrigue of a detective thriller to the methodical unravelling of the computer buff with the nicety of finding yourself playing the goodie. Since the real thing is of course illegal, and becoming more difficult as computer fraud loopholes tighten, this may soon be your only chance to play at being a computer hack.

COMMENTS

Difficulty: easier than the real thing!
Presentation: very good
Sound: some excellent, like ringing telephone
Response: very fast
General rating: good and original

Atmosphere	7
Addictive qualities	7
Logic	7
Debugging	10
Overall value	7

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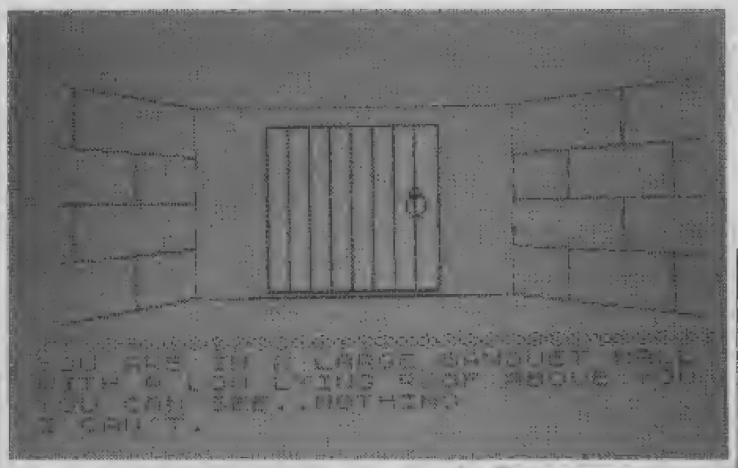

SERPENT FROM HELL

Producer: Scorpio Gamesworld
Retail price: **£1.99**
Language: **BASIC & machine code**
Authors: **Richard Shirley & Paul Johnson**

Everyone in modern civilisation is vulnerable to the consumerist kick — a strong desire to buy something (anything) before heading home convinced the trip was worthwhile. In Aldous Huxley's *Brave New World* it was a crime not to consume and indeed, despite media warnings of the credit boom, modern society would collapse were we all to decide to stop consuming tomorrow (that would give the chancellor something to think about next budget).

Some companies choose to prey on our susceptibilities by offering goods at knock down (or knock about) prices, but the truth is such purchases often only delay the consumerist craving. On the other hand, if you are struggling to get to grips with a more pricey complex strategy game, you'd be far too busy to make it to the shops in any case (even for food)! Don't get me wrong, some cheap games are indeed good value for money, but most, alas, prove the notion behind the saying 'you gets what you pays for' (explaining the universal unpopularity of poverty). This game is one of the many, and what you get is worth approximately £1.99.

Enough of modern society and back to noddy land (my favourite tourist destination).

According to the ancient books of the great monks, an evil force shall devour the land, 'before you the earth will open and from within an evil power shall errupt'. Now this prophesy has been fulfilled and the land is gradually wasting. As the last remaining Knight of the Round Table it is your duty to King and country to escape from your ambushed castle, find the legendary Excalibur, and destroy the source of all evil, Goroth the Serpent of Hell.

As if one program for a pittance wasn't enough, this game has two parts, one on either side of the tape. On the cassette cover six helpful hints (eg 'remember your manners' and 'don't be greedy'!) follow a short list of useful words.

You find yourself trapped within a banquet hall in the first frame but it looks and feels far more like a prison cell and it's hard not to think of it as such. The picture is very simple — a locked door stands in front of you. The colours are particularly awful. Graphics, when as poor and simple as they are here, are responsible for the view that graphics add nothing to adventures and worse, actually ruin what little atmosphere has been built up by the text.

The vocabulary it uses is awkward and unfriendly, made worse by the dumb computer; the program literally ignores all commands except those it chooses as necessary for your progress. And we are back to old nuts when a program only accepts TAKE and not GET. Abbreviations are too sophisticated for this one — everything must be spelled out with no I or even INV options on INVENTORY. EXAMINE KEY in the first frame brings no reply, quite a surprise after seeing the replies invoked by examine in *Emerald Isle*. Whenever you try something the program does not accept, the picture is redrawn, even if it's just a case of picking up an object as objects are depicted in the location picture. Text is printed slowly across the screen in a manner, and with a sound, similar to the labouring sports-news teleprinter. Just to prove the program's obstinacy, there is no DROP. This all takes us back through three years of adventuring, but even that long back many adventures had much more sophistication than this one.

Serpent from Hell follows *Ruby Runaround* as another very cheap adventure from Scorpio. The response is reasonably fast and the input routine solid with an accompanying bleep. The game offers minimal graphics and a confused scenario. Where it really falls short is in the area of communicating with the computer — you are often left wondering where the program has gone.

COMMENTS

Difficulty: difficult due to lack of response and awful vocabulary
Graphics: yes, but lacking in detail and colour
Presentation: printing of text is slow
Input facility: verb/noun, I think! The instructions do not concern themselves with such trivia
Response: most of the time it doesn't have one and simply ignores you
General rating: not recommended, even at £1.99.

Atmosphere	2
Vocabulary	2
Logic	5
Debugging	8
Overall value	3

ADVENTURE TRAIL REVIEW RATINGS

ATMOSPHERE: reflects quality of location description and graphics and how credibly characters behave.

VOCABULARY: the completeness of the vocabulary and friendliness of response. All words and associated words (objects etc) in location descriptions should be included.

LOGIC: reflects the logic of the problems encountered and whether or not you are likely to be killed without warning or chance of escape.

DEBUGGING: indicates the level of crashproofing. A program should not be crashed simply by making an incorrect entry or by pressing an unfortunate combination of keys.

OVERALL: general rating based on price and the other ratings BUT NOT AN AVERAGE OF THE OTHER RATINGS.

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CHAOS

Producer: Games Workshop
Retail price: **£7.95**
Language: **machine code**
Author: **SLUG**

Chaos is a game of magical combat between 2 to 8 wizards with over 50 animated spells, and creatures summoned to resolve the question of who will become the Lord of Creation. Each player takes his turn to select and cast spells and move the summoned creatures. The winner is the last wizard left alive after all the zapping is over, but there is a limit on the number of turns to achieve a victory, so a contest can be drawn.

The options open to enliven play are commendably large. Up to 8 wizards can be selected and any or all can be controlled by the computer. Further, the intelligence of the computer can be altered from a low one to its most competent at 8, at which level it plays a mean game.

Like *Talisman*, *Chaos* is a complex strategy game but it can be boiled down to choosing spells, and part of the joy of the game is to become familiar with how each spell functions. If you are not familiar with D&D this may take a considerable length of time, although you might see it as one way of introducing yourself to the genre. Spells, which can summon up creatures or elements like fire, lightning etc, are either Lawful, Chaotic or Neutral, where casting Chaos spells makes the universe more chaotic and less favourable for Law. Having chosen your spell, there is no guarantee it will be successfully cast — this is determined by the type of spell (10% for a Golden Dragon, 100% for a Giant rat) where there is a lesser chance of casting a powerful spell. Illusions, however, are always cast but are susceptible to the Disbelieve spell.

Starting the game and consulting the spell tables it soon becomes apparent that this is a very attractively designed game with a super clear and large redefined character set a million miles from that of the Spectrum. This neatness and presentability, along with the efficient beeps and buzzes, tell you this game was designed with the best intentions — to please the purchaser. The spell list is not only colourful, the shade of colour indicates how difficult each spell is to cast. To see exactly what you might be letting yourself in for you can check out the spell with the information files which give some idea of the range and power of the spell along with the vulnerability of the combatant and its opponent.

Spells include the Gooey Blob, which spreads and engulfs enemy creatures but does not affect your creatures; magic fire which can spread alarmingly, trapping and killing the enemy; to magic wings, a spell that transfers the wizard into a flying creature with a wide range of action. The creatures a wizard summons prove useful in many different ways. Flying creatures can hop over obstacles, wizards on mounts move more freely and with greater safety, and the undead can only be attacked by other undead.

The screen starts off very simply and uncluttered (perhaps too simply — a terrain of, say, bushes and walls might have added some atmosphere) but as each wizard summons more and more creatures it soon becomes busy enough for one or two sparks to fly. The graphics are very pleasing with super sprites of arrows and lightning bolts. The many dragons, bears, lions, hydra etc each have their own easily recognisable forms and motions. It's true that I chiefly review adventure games, but I must say just how impressive the sound here is — it has the little Spectrum speaker straining in a quite a harmonious fashion. The sounds are thick and throaty and you really feel every bolt of lightning as it hits you.

It is difficult to get everything right in a very complicated game but I did feel there could have been a status report for your wizard's strength, hit points and magical resistance during the game. The way things are, you don't know how much damage has been done. Perhaps a greater number of missile attacks like the Magic Missile of Dungeons and Dragons may have broadened interest further. Also, a fireball spell would have proved a useful area effect spell. A constant problem during play is the quick disappearance of information concerning your opponents' spells which flash up too quickly to read before they are gone.

Chaos serves up something that has long been needed in the computer games world, a game which can be played by a great number of players not in a token sense, but in a fully competetive framework whereby each player is actively involved. Games Workshop have brought their knowledge of D&D and boardgames to the microcomputer in a very professional manner and have produced games of real substance.

COMMENTS

Difficulty: easy to play, once you get into it
Graphics: combat area is sparse but character and special effects graphics are good
Presentation: good, with large colourful text
Response: very fast
General rating: very good strategy game

Graphics	8
Playability	8
Getting started	7
Addictive qualities	8
Overall	8

Crash Competition

TIME FOR A QUICK MARAUD!!

With Erik the Viking and the dangers of the dawn of history!

THE SAGA OF ERIK THE VIKING is an adventure game based on the book by TERRY JONES. In the game you play the role of Erik, and have to go in search of your wife and family who have been carried off by evil Dog-fighters.

Our Adventure reviewer, Derek Brewster, felt moved to put on a thick woolly jumper and avoided combing his hair for a few days before he played Erik (doubt anyone would have noticed the difference, Ahem!).

In conjunction with PAVILION BOOKS, who publish the written version of Erik's adventures, and MOZAIC the Viking Microchip experts, we've devised this competition to get you in the mood for a bit of marauding!

Three copies of the book will be won, and Mozaic are offering twenty copies of the game which normally sells at £9.95 and includes a booklet which contains a couple of tales about Erik.

Here are a few questions about Vikings — work out your answers and write the solution out on the back of a postcard addressed to VIKING COMPETITION, PO BOX 10, LUDLOW, SHROPSHIRE, SY8 1DB to reach us before 30th May.

Usual competition rules apply — first three out of the hat win a book and a copy of THE SAGA OF ERIK THE VIKING, the next dozen receive the game only. Byee. . . .

1) The Vikings are believed to have discovered a continent before anyone else. Was it **A)** Australia, **B)** Africa, **C)** South America, **D)** North America, **E)** Oceana?

2) How do you spell the name of the high sided valleys that Norway's famous for? **A)** Fjord, **B)** Fjord, **C)** Fiord, **D)** Fjord, **E)** Fjoird?

3) One of the Norse gods is associated with a hammer. Is it **A)** Odin, **B)** Stanley, **C)** Freya, **D)** Thor?

4) What is **Valhalla** (Not the proggy, stupid)?

We'll start this month with a letter from GQB Havenhand of Sheffield who sends us tips on Mizar's excellent arcade adventure OUT OF THE SHADOWS.

Despite CRASH's very good review of the adventure *Out of the Shadows*, no one appears to have come forward with hints or tips, so here goes.

An adventurer's first task is to devise a quick and effective method of getting back to base. To solve this problem I merely placed markers 3-4 steps apart from north to south and east to west, all over the wilderness area, enabling my character, if lost, to merely go in one direction until markers are reached and follow them back to base and safety.

After acquiring various items (especially torches and a tinderbox) from boxes and clay pots in the wilderness, the next step is to venture underground.

After lighting your torch, proceed downward. A battle tactic you must quickly use is to fight the various monsters from the relative safety of a doorway. This results in only 1 or 2 monsters attacking you at a given time, and results in your back being protected.

There are no wandering monsters, only a certain number in each room; if an adventurer flushes out one room at a time, then he can always retreat to it from adjoining rooms to heal wounds etc (comes in handy when fighting Dragons and Balrogs).

Your aim is to acquire your chosen quest item and return with it to home. However, to make the task easier an adventurer should acquire as much armour as possible, a full suit renders him invulnerable to everything, although Rusters can destroy items of armour after 3-4 rounds, so be careful. The sword is of course the ultimate killing weapon capable of up to 110 damage points against monsters.

The various magic items are useful. Rods can form water barriers, Staffs form wall barriers and horns when blown cause monsters to run away.

So for my adventurer — Gimli the Dwarf has completed Quest number 4, The Arkenstone amongst Dragons. His Experience is 28538, Strength 54, Dexterity 35, Hit Points 159, he is fully armoured and has loads of weapons including 2 swords.

However, be careful, when I enter the room and killed the Dragons with the Arkenstone, I found all the exits had been sealed, but fortunately I escaped using a Teleport spell.

Many people appear to be having problems obtaining this game as, rather oddly, it appears to have been overlooked by many retailers, presumably because Mizar haven't bothered with the hype so common for the megaBASIC bores they try to force upon us. (See Roger Kean's Editorial at the front of this issue). I live in hope that one day the retail trade will stock goods based purely on quality and what the public want, but there again I'm probably just an idealist! Anyway, if you are having trouble finding the game, it can of course be obtained from the CRASH mail order department.

SIGNPOST normally only looks at adventures from the player's point of view, however this month I have received a letter from the other side of the fence, from Alan Davis, **author of THE JOURNEY, giving the programmer's point of view. Alan comments on** Mike Arnutov's **letter published in the February issue and writes:**

I suspect that an answer to these suggestions depends very much on why a given writer is writing a game in the first place. Many adventures are clearly potboilers and I don't propose to discuss these, but on the whole one can very roughly distinguish two motives for either playing or writing an adventure:

(a) the pleasure of solving or setting up intricate puzzles.

(b) the creation of an imaginary world.

In general these are mixed in varied proportions and by varying methods (I veer very strongly towards (b) myself, I'm not terribly interested in puzzling for puzzling's sake). Because of these radically different motives, I don't really think it's possible to set down such a rigid set of rules as Mike proposes. What you write into the program is governed primarily by the kind of program you're aiming at.

My own method of working is simply explained: I write the kind of game I'd like to be able to buy, but can't because no one writes them! I begrudge every single byte of memory that does not add significantly to the richness of the game itself. I only stop working when on a program when there's just no room in the memory for any more! This being the case, one or two of Mike's comments seem quite horrifying. Why have a command to list all the verbs when you can do so perfectly well on the cassette inlay or in the instruction booklet, thereby saving a couple of program lines? Does movement in 8 compass directions really add significantly to the realism to justify the extra routines needed? I wouldn't have thought so. . . .

The point is this: any program that started as 100K's worth of ideas which are subsequently squeezed into the 41K available is going to involve a good deal of compromise! Something has to be left out and different programmers will make different decisions about the relative importance of the bits and pieces, according to the game they're writing. For example, in some games the ability to chain commands is a real boon, in others it doesn't matter a hoot. Of course, if a program doesn't use all the available memory and still suffers deficiencies in the user-friendliness department, then something is sadly amiss.

The trouble is that you can't please all the people all the time, much as you'd like to. And so while the debate will doubtless go on and on (why not — it's fun!), I very much doubt whether any sensible conclusion will emerge as long as different people write different games, and different people play them.

Alan informs me that the follow-up to THE JOURNEY is now complete and is light years ahead of its predecessor. I look forward to reviewing it in the near future.

With regard to the letter published in the March issue from Graham Fulcher, **I must strongly disagree with his attitude towards text-only adventures. The saying that a picture paints a thousand words may well hold true in most circumstances, however where an adventure is concerned, often with fantasy based scenarios, I believe that a picture can destroy a thousand images. Adventures as rich in text as Level 9 ones are certainly not word matching exercises, and such adventures require the use of logic and not a Thesaurus in order to complete a given task.**

Beyond's two contributions, *Lords of Midnight* **and** *Doomdark's Revenge* **have shown the direction that strategy games must go now in order to make their mark, and not adventure games as Graham believes. When I completed** *Lords of Midnight* **last November, I felt it was due not to adventure tactics, but strategy, eg how should I divide my armies between attack and defence? Should I rest my armies before my attack on Ushgarek and risk Doomdark's armies regrouping there or move on? Etc.**

I agree with the points raised by Craig Lemon except for the parts involving the graphics. I think that companies supplying adventures in the £9–£15 price bracket should provide a small booklet which gives an introduction to that adventure and not a general adventure introduction. They should provide other scene setting items, such as maps, a spell book and scraps of paper with other relevant details that are important to the adventure; also a list of words understood by the program. American companies like Infocom do so — why haven't British companies done the same?

Competitions on adventure games do not get off the ground as far as I am concerned, except for the possible exception of *The Ket Trilogy*, although even then the title of Britain's Greatest Adventurer? I doubt it somehow. The lure of The Crown Jewels or an infinite lives POKE for the human race do little to improve the desire to purchase these programs. Have you seen *Hareraiser*? Well? I think I've proved the point, I don't like *Pimania* and I don't have *Eureka!*, so I can't comment on the latter.

I tend to agree about competitions on adventure games, most would certainly fall into Alan Davis's Potboiler category, although there is no reason why this should always be so.

And now to the aid of our distressed adventurers. All the following hints use the usual coding system. To decode simply rotate each letter backwards through the alphabet by one letter, so S becomes R, R becomes Q etc.

Many explorers have found the high gravity area in **THE HULK** a rather weighty problem. To progress ZPV NVTU CF UIF IVML, CJUF MJG.

This month I've had several requests for help in opening the Electronic Door in **FANTASIA DIAMOND**. If I remember correctly you PQFO QBOFM (or something like that), QVTI CVUUPO.

G Havenhand from Sheffield is having a slight problem in **RETURN TO EDEN** — he keeps getting fried! To avoid this JO. HFU 8MM, PVU, PVU, F, EJH, E, E, E, F, T, XBJU.

Cerebus still blocks the path for BA Armstrong from Portsmouth in **INFERNO**. To scare him away UISPX TUPOF.

Paul Atkinson of Liverpool is having difficulty escaping from the hotel in **VALKYRIE 17**. DPMMFDU TIFFUT, PQFO XJOEPX, HP POUP MFEHF BOE FOUFS BEKBDFOU SPPN UIFO UJF TIFFUT, UJF TIFFUT.

In **KENTILLA**, David Bradbury from Stoke-on-Trent has had his progress dampened by his failure to dry the moss. UBLF JU UP UIF BSGB PG BSJE EFWBTUBUJPO.

Ian Duggan of Uxbridge asks questions on each part of the **KET TRILOGY**. In the **MOUNTAINS OF KET**, how do I pass the dragon? GJMM CPUUMF XJUI PJM, QPVS PJM JO XBSN SPPN, PQFOEPPS.

TEMPLE OF VRAN, how do I avoid being shot? HFU IBJS, XFBS IBJS.

FINAL MISSION, how do I open the trapdoor? EXPO.

For all those still trying to defeat the Greenslime, ZPV DBO'U.

Many superheroes have been having difficulty with the very popular **SPIDERMAN**, here are the solutions to some of the more popular queries.

1. How do I defeat the Lizard-man? NJY IZESPDIMPSJD BDJE XJUI DBMDJVN DBSCPBUF JO DIFN MBC ESPQ CZ MJABSE.
2. How is the web fluid made? QVMM QBJOUJOH JO QFOUIPVTFE, HFU DIFNJDBMT, NBLF XFC JO DIFN MBC.
3. How do i enter the Penthouse? FOUFS MJGU TIBGU BOE HP VQ VOUJM TPNFUIJOH TUPQT ZPF UIFO QVTIVQ.
4. How can the fan be stopped? DBTU XFC, BU GBO VOUIM SQN. DIBOHFT UP 25. DBTU XFC, BU CVUUPO.

All these solutions have been kindly supplied by Alex Hughes of Solihull.

Oh well, that's it for another month, I seem to have run out of space again! (Have you noticed how Lloyd's letter page keeps expanding)?

This month's letter prize goes to GQB Havenhand who will receive a copy of *Knight Lore* (that'll teach 'im for requesting *Alien 8*)!

WIN A CRAS

And continu

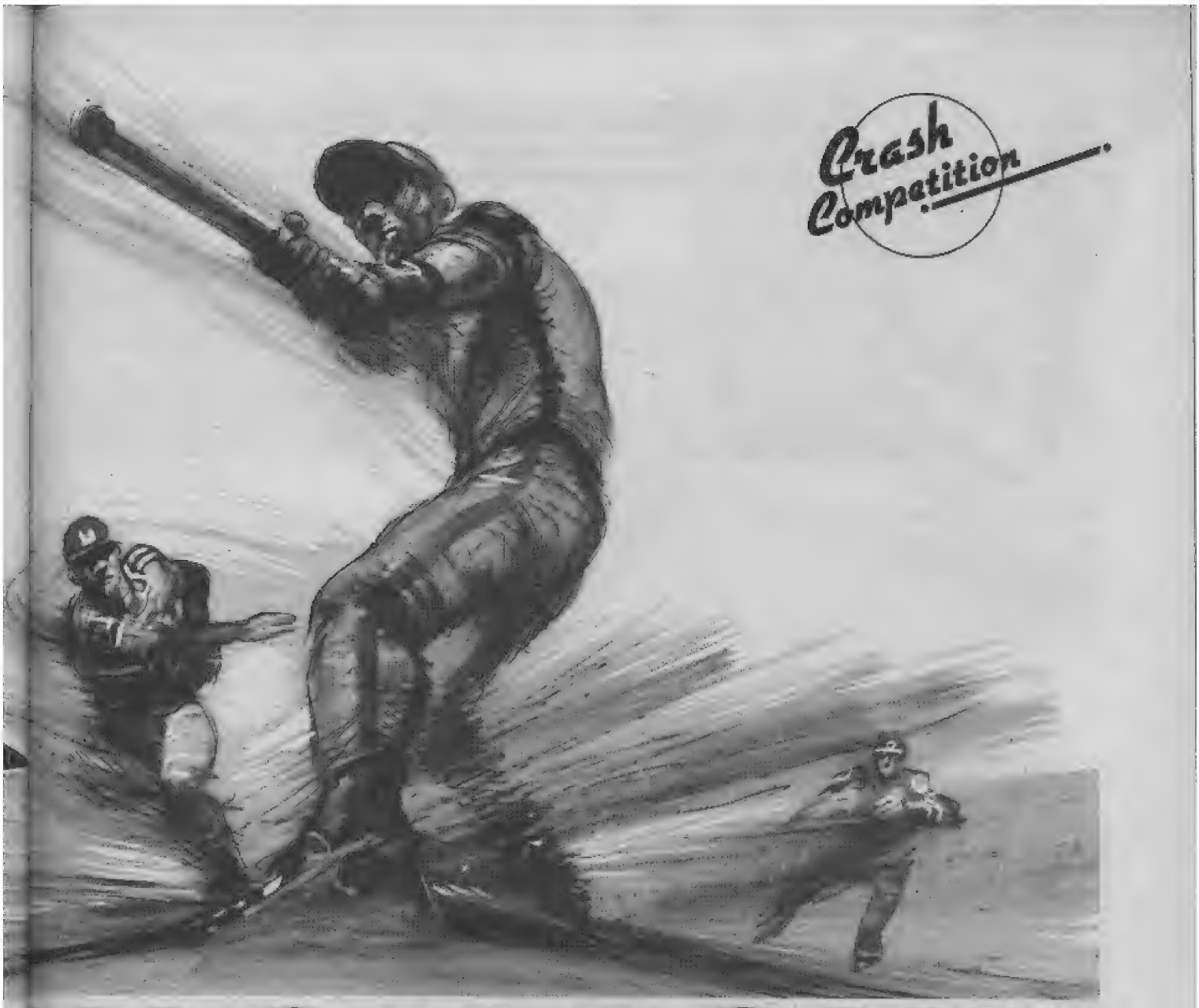
The superbowl can be in your bedroom. Imagine that! (No, not the washing-up bowl from Clark Kent's flat, the baseball game . . . idiots).

OCEAN'S new IMAGINE label strikes out with the CRASH Smashed WORLD SERIES BASEBALL. Now baseball fans needn't wait for Channel 4's Sunday coverage, and won't have to emigrate to America before they can join in the fun.

It's another comfy-chair-exercise program, which allows you to have all the thrills and spills of real live sporting action without working up a sweat. Once again we've put together a cunning wordsquare for you to exercise your brain on, in consultation with the feature writing team on Idleslob Monthly; we guarantee you won't start to perspire while solving the puzzle.

Aristocrats of Idleness will no doubt slowly thumb through Chris (if it rolls easily, kick it soundly) Passey's Sports-Scene round up in this issue, and decide which of their old favourites to load up and run (nasty word, we know, but it IS a command in BASIC).

But you, dear reader, could be amongst those people to work out free with WORLD SERIES BASEBALL . . . all you've got to do is find the following words hidden in the wordsquare, ring them and send in your entry form to reach us by 30th May.



Crash Competition

SH SMASH!!

your Get Fat campaign . . .

S	E	B	A	L	L	A	B	E	S	A	B	A
G	R	A	B	L	V	X	A	I	G	A	M	I
N	N	E	B	I	N	P	I	T	C	H	E	R
I	M	L	D	M	L	O	I	T	S	J	R	E
N	S	A	T	L	C	O	T	B	A	S	E	D
N	T	U	O	D	E	G	G	A	T	K	C	A
I	R	F	O	O	W	I	S	T	U	O	A	E
M	I	N	N	I	M	L	F	T	N	A	L	L
A	K	C	B	A	T	T	I	I	N	G	W	R
G	E	T	G	O	N	E	A	N	W	O	A	E
A	S	I	P	N	E	F	I	G	O	F	I	E
N	N	P	H	E	U	Y	J	F	G	Q	G	H
E	D	C	A	M	E	R	I	C	A	N	K	C

BASEBALL
IMAGINE
CHEERLEADER
PITCHER
RUN
TAGGEDOUT
BATTING
FIELDERS
INNINGS
STRIKES
OUTS
AMERICAN

Usual competition rules apply, and judging will be undertaken (without too much physical effort) by Gumbo Fatgut, Editor of Idleslob Monthly. His decision will be final, non sweaty and generally indolent. If his heart can stand the strain of being woken up, that is.

Entries marked WORLD SERIES COMPETITION to PO BOX 10, LUDLOW, SHROPSHIRE, SY8 1DB — and don't forget to write your address on the entry form.

Name .....

Address .....

.....

.....

THE SINCLAIR STORY

part two

Nineteen seventy nine saw Clive Sinclair and the NEB part company. Left, once again, to his own devices the electronics mail order king turned his attention to the home computer. The microcomputer had previously been the preserve of wealthy computer buffs and forward-thinking businessmen, but Clive Sinclair was about to change all of that. . . . We continue our series of articles on the man who brought us the Spectrum.

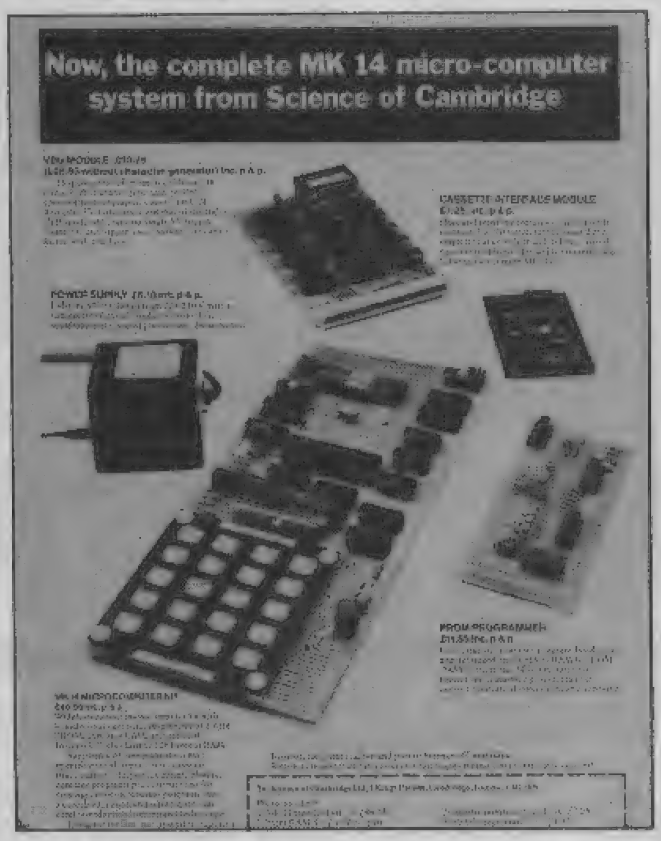
Clive Sinclair has always been, and probably always will be, in the business of consumer products.

In the mid-70s, the National Enterprise Board injected capital into his pocket TV project, funding it on a fifty-fifty basis. The instrument side of Sinclair's activities thrived, dominating the market — but soon after the NEB joined forces with Clive Sinclair, they lost faith in his consumer electronics interests.

Admittedly, money was being lost by Sinclair on a number of fronts, and he had suffered a heavy loss on his black watch project. However, the whole consumer electronics industry was going through a bad patch, with cut-throat competition making life difficult for everyone in the field. The Japanese hadn't entered the instrument market and Sinclair's digital metering equipment led the field. The NEB wanted to concentrate effort on the range of meters.

Despite Clive Sinclair's argument that his company had the winning technology and was bound to be successful with one-per-person electronic products, the NEB had no confidence in the future of consumer electronics. Eventually, the partnership was dissolved. In 1979 Clive Sinclair left with a nucleus to start a new company, leaving the NEB to make meters.

History proved Clive Sinclair to be right.



CHIPS WITH EVERYTHING

The MK14 microcomputer rapidly grew from a single board machine into a multi-board, modular system which included a cassette interface card, and a VDU module which permitted characters or graphics to be displayed on a domestic TV, and an EPROM programmer which allowed the user to transfer code to a chip and use the MK14 as a dedicated machine by replacing the monitor with a custom programmed EPROM chip.

The technology behind Science of Cambridge's first computer was undeniably smart, but appealed mainly to electronic buffs, and was never really destined to be a major seller.

Home computers were still very much at the hobbyist level in the late 70s — relatively expensive complete machines were available, but tended to be the preserve of the businessman and the academic, rather than the ordinary person. Those computers that were to be found in the home were generally built from kits by dedicated wielders of the soldering iron.

In 1980, however, with the launch of the Sinclair ZX80, the foundations of the home computer market as we know it today were laid. Selling for £80 in kit form, but available ready built for £100, the ZX80 brought real computers within the purchasing power of most families — and you no longer needed to be technically inclined as well as a keen machine code programmer to run and use a home micro.

In combination, the ZX80 manual and the machine itself provided an easy way for the novice to begin programming in BASIC. The Sinclair keyword system of entering program statements from multi-function keys rather than entering them character by character from a standard typewriter keyboard was a major innovation — as was the built in syntax checking.. Both these features were carried through into the ZX81 and Spectrum — not least because each successive machine to leave the Sinclair stable contained a chunk of its predecessor's ROM.

The ZX80 had a 4K ROM containing the operating system and a BASIC interpreter. 1K of on-board RAM was included, which was soon supplemented by a RAM pack which fitted into a slot at the rear of the machine. The ZX80 was very limited in its capabilities. Like its successor, the ZX81, it wasn't a colour computer and it couldn't cope with much in the way of serious programming. You could only use integers (whole numbers) and data for a program had to be stored with the BASIC, in the same file. The ZX80 couldn't handle cassette files.

There were problems with the Sinclair RAM pack, which tend-

The first accessible low-cost home computer — the ZX80

'RAMpack wobble' became a household phrase after the ZX81 sold half a million

ed to be rocked when pressure was put on the ZX80 keypad, and quite a few machines failed as the edge connectors at the rear of the machine shorted out. This problem gave rise to non-Sinclair add-ons, and a couple of well-known names currently active in the Spectrum marketplace have their roots in these days. Dk'Tronics, for instance, started making RAM packs, and Quicksilva turned out memory boards

The ZX80, like the ZX81 and ZX Spectrum, started life as a mail order product. Straightaway, Clive Sinclair went for the person-on-the-street, not just the hobbyist, and he jumped into the market without any research: 'it's an absolute waste of time to take a personal computer along to people who've never seen one before and say 'will you pay £100 for this plastic object here. It looks like a squashed telephone, and people are bound to say 'what would I want to know about computer for? Life is far too complicated as it is''.

But want to know, they did. Especially when the ZX81 was launched early in 1981 — half a million were sold within a year.

The ZX81, amazingly, was a better computer than the ZX80 but was sold by Sinclair for £30 less! Sinclair has a policy of passing on savings made on production cost over to the consumer. The ZX81 was designed to use a total of four chips, rather than the twenty one chips (plus voltage regulator IC) used in the ZX80. It was cheaper to assemble, and was priced accordingly.

The ZX81 could cope with floating point arithmetic which was achieved by a sub-interpreter, crammed into the ROM, and written very compactly in a FORTH type language. Square roots, for instance, were calculated using only seven bytes — but the code took an awful long time to run! The Spectrum is so slow on floating point arithmetic because it uses these very same routines, that first appeared in the ZX81 ROM.

So how did Sinclair get rid of seventeen or eighteen chips in one go?

The ZX81 had a ROM chip, a CPU chip, a 1Kx8 RAM chip (the 4118) and an Uncommited Logic Array (ULA), which improved upon the work of the eighteen chips from the ZX80 which it replaced.

A ULA chip is basically a relatively cheap way of producing a custom chip quickly — the ULA manufacturer puts a mask designed to the customer's specification over a standard component, rather than designing an entire chip from start to finish. The resulting chip is not as efficient as a custom chip, built from scratch. The big snag with ULA's is that you can't be sure that your mask will actually produce the chip that you want until you've actually made it.

WARMING THINGS UP IN COLOUR

Sinclair was fairly lucky with the ZX81 ULA — it was pretty much bug free, but the machine suffered from overheating because Mr Sinclair stretched the ULA to its limits. According to Ferranti, who made it for Sinclair, you were only supposed to use 70% of the logic gates on the 'blank' chip when you add the mask. Sinclair used all the gates, so things tended to get a bit warm!

Fortunately for Clive Sinclair, the ZX81 board had been designed to take on 4118 chip (a 1Kx8 memory chip) or two 2114 (1Kx4 memory) chips. Fortunately, because there was a chip famine shortly after the ZX81 hit the streets, which meant that most ZX81's ended up with five chips. Two 2114's replaced the originally-specified 4118. This famine also had a lot to do with the final collapse of NASCOM, whose computer used a lot of the 4118 chips.

April 1982 saw the launch of the ZX Spectrum, Clive Sinclair's first colour computer, which came in two versions, with 16 and 48K RAMs. (And we won't bother to explain what a Spectrum does in this column).

Once again, a ULA was used in the Spectrum, and like the ZX81, the Spectrum ROM borrowed from its younger brother. (Machine code freaks can find a tiny 24-byte subroutine hidden away in their Speccy RAMs at address 04AA. It checks for ZX81 Program names).

Sinclair wasn't so lucky with the ULA used in the Spectrum — a fault was found at a very late stage, which meant that the CPU could misread the keyboard half the time. On Issue I Spectrums this fault was remedied with the 'Dead Cockroach' — a small circuit board stuck next to the Central Processing Unit, upside down. Issue II Spectrums had a different ULA to Issue Is and they had a different bug, which caused the machine to select the ULA when it shouldn't have done. This was Kludged too, with a transistor inserted over the top of the Z80 chip, which stopped the CPU and ULA from interfering with each other.

The most successful British home computer — the ZX Spectrum

The Issue III Spectrum had a redesigned ULA, together with a redesigned circuit board which allowed extra memory to be added more simply. It was cheaper to make, because the trimmers which fine tuned the colour display on earlier versions no longer had to be set by hand.

Incidentally, the Issue III machine set three unused bits on the eight bit keyboard port differently, placing different values to those generated on the three redundant lines on the Issue I and Issue II Spectrum. Some gumby programmers had written code which read those three unused lines for no good reason, and relied on finding the expected values (when they shouldn't have). When they found that their code behaved erratically on the Issue III Spectrum, they blamed Clive Sinclair!

By January 1983 Clive Sinclair had sold his first million computers. In November of that year his flat screen TV was unveiled, and he was knighted, becoming Sir Clive Sinclair in the Queen's Birthday Honours List. Next month, as we didn't quite get to it this month: interfaces, microdrives and the QL.

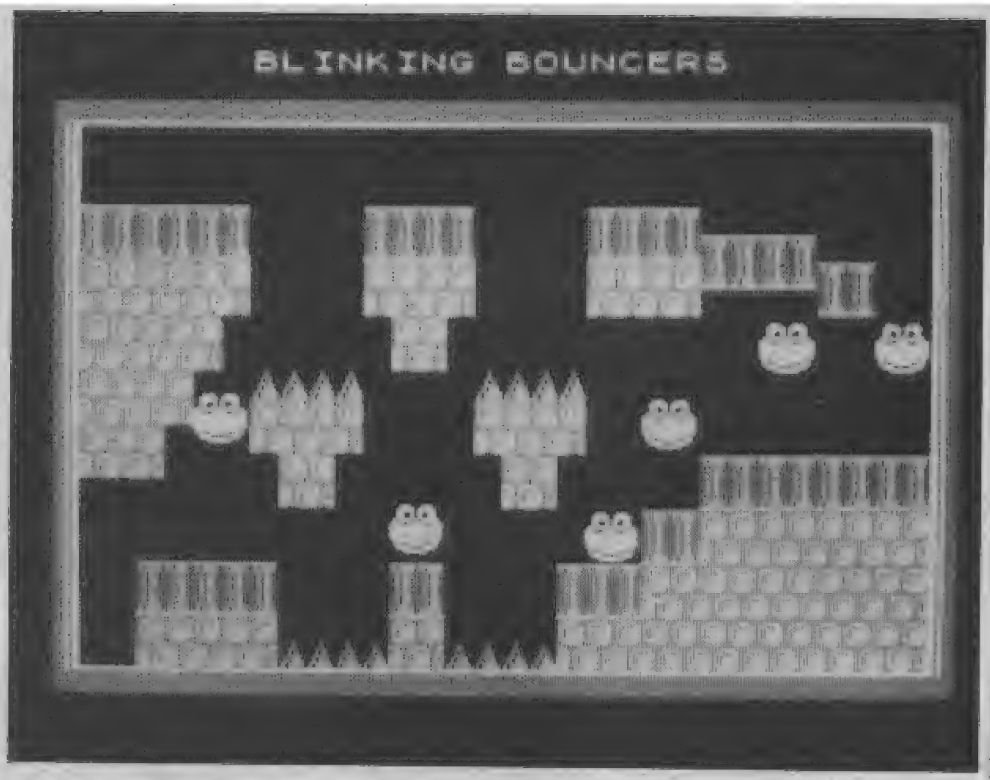
Reviews

BUG EYES

Producer: Icon
Memory required: **48K**
Retail price: **£6.95**
Language: **machine code**
Author: **Peter Fothergill**

Nasty little bug-eyed monsters have decided to destroy all intelligent life in the universe. For some inexplicable reason they decided to start with Earth. You, the player, have been recruited to save us. The enemy space ship is closing in and you must secretly enter it, outwit the alien beings within and destroy its power source.

Bug Eyes is a fairly easy game to sum up, it's a platform game. Each of the 10 screens has two main types of hazard — objects that go up and down threatening to crush the hero should his timing be anything less than perfect; or the second main hazard which takes the form of bridges that exist only just long enough for them to be crossed. In the unlikley event of your getting past those problems you will occasionally be called on to deal with a few minor hazards such as descending doors or 'the big nosed gliding ogre'. In the first screen, called 'stamping stompers' the players has to avoid being crushed by Romanesque type pillars. Should he manage that then the next screen's crushers take the form of the 'blinking bouncers' — in fact the author of this program is something of an artist when it comes to alliterations, the game is drenched with such goodies as 'dreaded dastardly descending door' or 'the terrible twisting thingies'. The game doesn't require great speed from a player but it does require impeccable timing and judgement. The game is made even more difficult because the time allowed to complete each screen is limited, as you make your way through the screen you will notice that the energy level drops as time passes, fail to reach the exit before zero energy and you lose a life. The energy counter, shown at the top of the screen on a bar chart, is renewed with each new screen or life. Points are awarded for each obstacle that is cleared but sadly there is no high score facility. Some times you will escape death by virtue of a feature called 'automatic alien repulsion device', there is no means whereby the player can invoke this machine it simply means that there will be times when the player should have been got, but wasn't. In fact the only controls required to play the game are left and right, no jumping or blasting is required.



CRITICISM

● 'This is really a very ordinary game, except perhaps for the graphics which are very attractive not to say smooth. The most outstanding feature of *Bug Eyes* is the characters portrayed within, but I gave up drooling over those after only ten minutes. I will confess that I have had more than a little difficulty penetrating the starship but that's because my sense of timing lands me in trouble crossing the road. I think this is one of those games that is immensely challenging and addictive until you've cracked it. It does make a change to have a platform game that doesn't require zapping and leaping, just not a very good one. It would be fair to say that this game would suit people who enjoy playing challenging computer games but don't require an extra pair of hands and a double jointed hip to play, from that point of view it's an ideal beginner's game but not up the the level of adept arcaders.

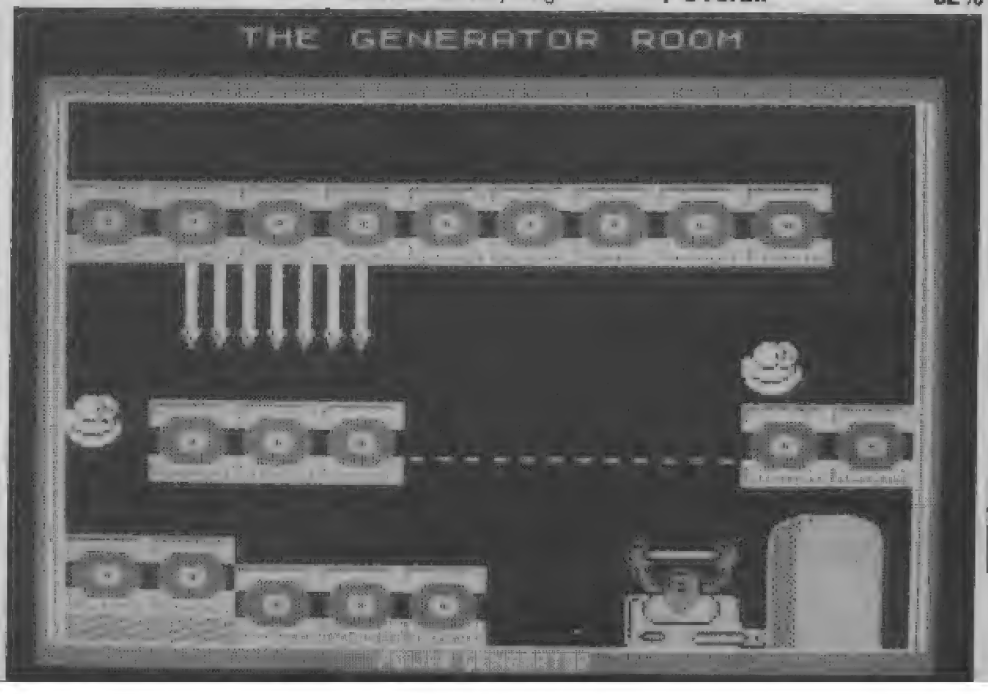
● 'Bug Eyes *is a very hard platform game. It only has two keys, so it seems quite simple at first, but after a couple of screens, timing your runs correctly becomes increasingly difficult and your four lives go very quickly.* Bug Eyes *has nice big graphics and fair sound with all the characters being well animated. The only thing that really gets up my nose in this game is at the very start — a message appears on the screen and an utterly untune-like noise is played. I quite enjoyed playing this game and on several occasions it had me going for the jump button that didn't exist.'*

● *'Bug Eyes* is a very simple game to get into after all you only need two keys to play the game. The graphics are quite good and the sound isn't bad either. Colour is used well and the whole game is quite good. I found *Bug Eyes* moderately fun to play at first but after a while I soon got bored of the whole thing. Overall not bad for a while but nothing to rave over and not enough to hold the player's attention for very long.'

COMMENTS

Control keys: 6/7 left/right
Joystick: yes but type not specified
Keyboard play: very responsive
Use of colour: very good indeed
Graphics: chunky but well defined and attractive
Sound: not extensively used but amusing
Skill levels: 1
Lives: 4
Screen: 10
General rating: not immensely exciting to play but this is an attractive game and very challenging to master.

Use of computer	65%
Graphics	65%
Playability	68%
Getting started	65%
Addictive qualities	58%
Value for money	55%
Overall	62%



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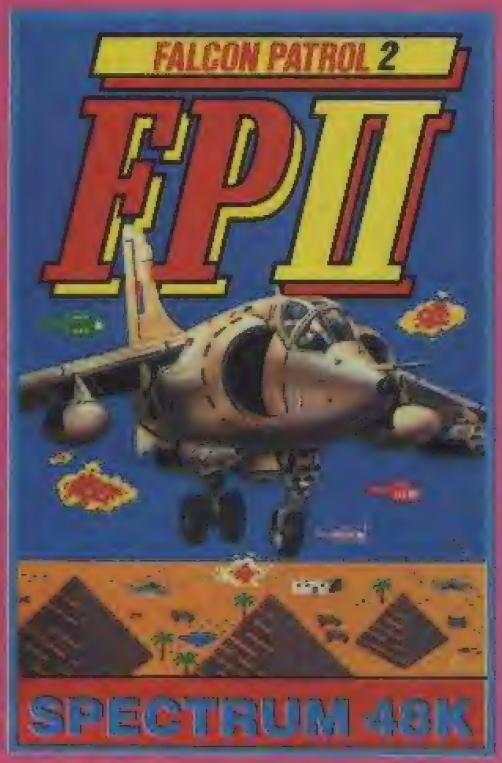

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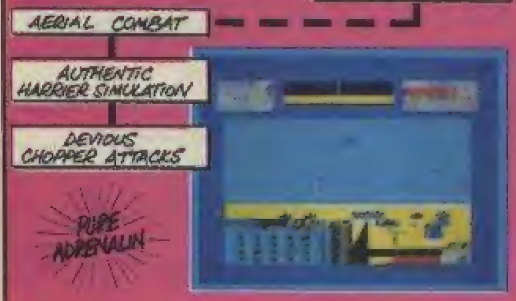

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S·P·Y H·U·N·T·E·R

SPY HUNTER

Producer: US Gold
Memory required: **48K**
Retail price: **£7.95**
Language: **machine code**
Author: **Sega**

This is US Gold's officially licenced Spectrum version of the American Bally Midway hit with you playing the Spy Hunter. *Spy Hunter* is a kind of road racer-cum-river raider, an all action shoot em up of the old school. There are numerous sections to the game, but basically *Spy Hunter* takes two forms. It starts on a road as your Weapons Van pulls up at the side of the road to allow your Spy Car to roll down the ramp and onto the road. You're then on your own, guiding the car along the torturous roads, pursued by various enemies, each with their own characteristics. These can be destroyed by ramming them into the side of the road or shooting them.

The second form occurs if you take the correct side road down to the boat house — driving into it automatically converts the Spy Car to an amphibious vehicle, and the chase continues on the water.

While you are on the road there is a chance to 'dock' with the Weapons Van, whereupon the Spy Car's weapons are exchanged or added to. The weapons carried are displayed at the bottom of the playing area, and an element of strategy is involved in ensuring the right weapon is on board for the particular task in hand.

The enemies include the Road Lord (bullet proof — must be rammed off the road); Switch Blade (buzz saw hubcaps - nasty); Barrel Dumper (drops barrels in your path in the water); The Enforcer (fires a shotgun); The Copter (drops bombs on your car/boat); and Doctor Torpedo (fires torps at the Spy Boat).

Guiding your vehicle is tricky, since the roads/waterways twist and turn, branching off into what may well be dead ends. Occasionally a message on the road may warn you that a road is closed and you should take a detour. Control of the Spy Car allows left/right movement as well as accelerating or braking.

COMMENTS

● 'It's nice to see that US Gold are continuing with their arcade reproductions of Sega's top hits from the States. I must admit to not seeing *Spy Hunter* in the arcades — yet. Whatever the arcade version is like, this Spectrum version seems to be an extremely playable game. The scrolling graphics are some of the best I've seen on the Spectrum and work well — they are colourful and very detailed. Progressing through the game I found that the enemy grew increasingly mean, and it required more skill, but this was a gradual progression as you are teased more and more into the game. This is a good feature of *Spy Hunter*. This game has enormous playability and I was totally captured in a different land of action. It's the sort of game I'd come back to months later.'

● *'An interesting point to all these US Gold releases of older American hits, is that they seem, single handedly, to be creating a rebirth of simpler arcade shoot em ups.* Spy Hunter *is definitely a very simple idea, but the speed, variety and ferocity of the action makes it huge fun to play. The large, well designed graphics move very well, and I particularly liked the way some of the nasties spin off the road.* Spy Hunter *combines all the elements of a good road racer game (although there is no 3D perspective, everything being seen from above) and a fast shoot em up. I think it's moderately addictive because the increasing difficulty is well built in to the game and the screens are variable enough to add interest, but most of all, it's a good zapping game.'*

● *'Spy Hunter* is a fairly good arcade to spectrum conversion. The graphics are fairly good though the sound is used poorly for such a great game. Of all the Zap em up games I've ever played *Spy Hunter* is a firm favourite amongst them. Playability is high because there is such a lot going all the time. I don't think that this game will keep anyone's interest for weeks and weeks because it's a fairly

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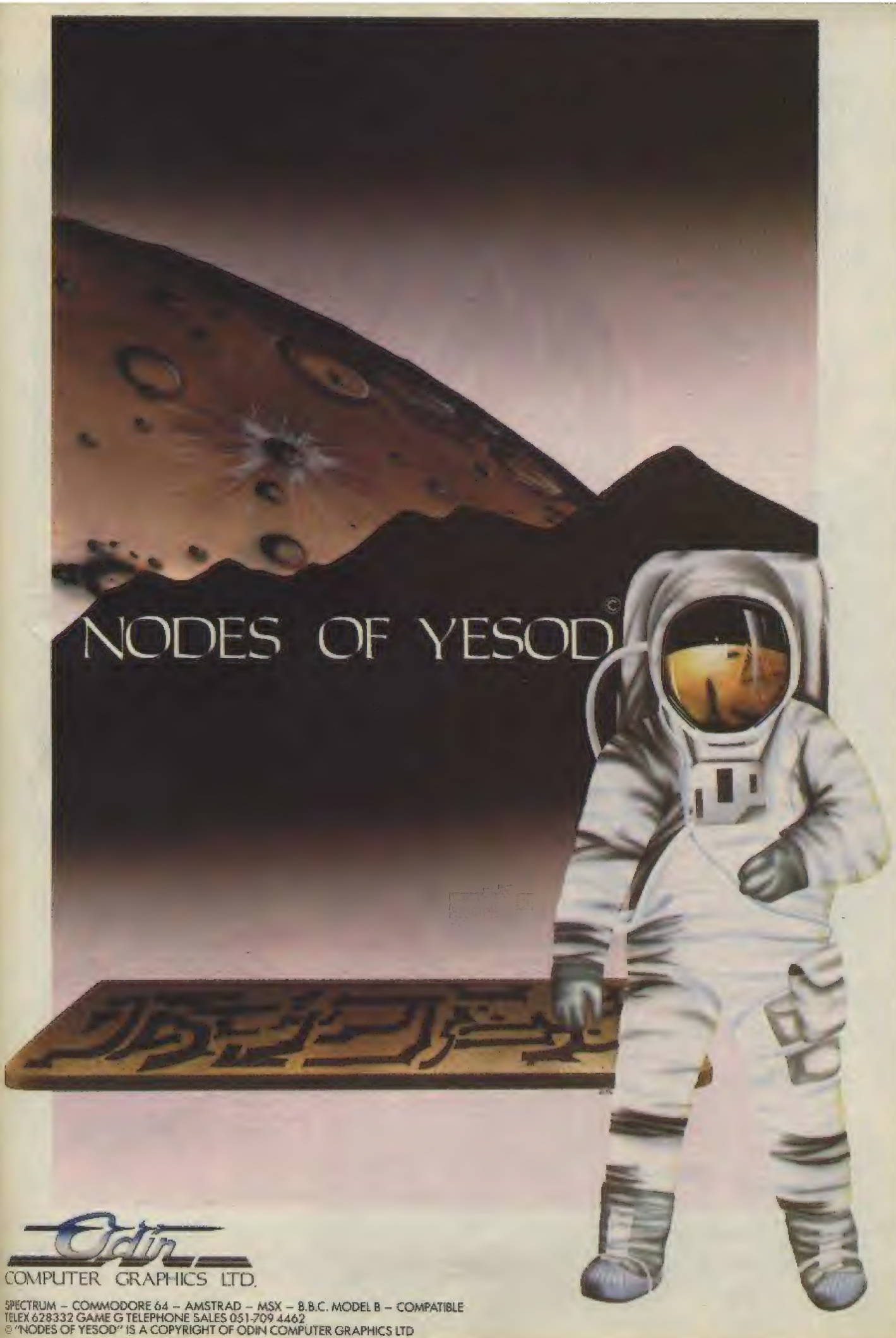

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FANTASTIC VOYAGE

Producer: Quicksilva
Memory required: **48K**
Retail price: **£6.95**
Language: **machine code**
Author: **John Edmonds**

This is the officially licenced computer game version of the 20th Century Fox film of the same name. In the film a group of scientists are miniaturised together with their submarine and injected into the body of a seriously ill patient in an attempt to carry out vital surgery in situ — micro surgery from within. They have to wear scuba equipment to survive in the bloodstream and squishy organs of the person and find that white blood cells and viruses are more lethal than sharks.

The game follows the film idea quite closely, except that now you are on your own and by some stroke of misfortune your submarine fails to respond so well to miniaturisation and is scattered throughout the body in eight pieces. Among the objectives of the game, one of the most important is to recover the eight pieces and assemble them within the patient's brain to escape.

The display shows a large playing area of interlinked screens. You start off inside the mouth, just behind the firmly clamped teeth. To the right of the playing area is a graphic representation of the human body. A small dot shows your relative position. Here also are shown the infections which from time to time infect the host body. A red flashing square indicates where and you must move quickly to destroy the infection with your laser before it raises the body's temperature excessively and kills it (thus ending the game). Above the playing area is a temperature bar, score lines, location name, time taken, percentage scored and the name of the location where any infections have broken out.

Growths within the body can be destroyed by collecting a white blood cell and getting it to collide with the growth. Cholesterol may block some passages and can be removed by lasering it (although the laser only operates horizontally). Green viruses are dangerous but may be destroyed by your laser whereas other hazards are immune and lethal. Although this is set inside the human body, it is very much a mapping game and the player will have to discover the various routes around the body, collecting the submarine parts as you go.

CRITICISM

●'Yep, it's another game of the film, folks. At this rate they're going to have to include a mime for 'game' on *Give us a Clue*. In this game you venture into the realms of the human body. The fairly simple graphics and general movement are acceptable but neither are exactly mega-league class. A bug, well it could just be an infection, in the program tended to make the diver go invisible for no apparent reason. This happened in almost every game, it was really annoying. *Fantastic Voyage* has not really got enough content to keep the serious player's attention for very long.'

●*'I rather enjoyed* Fantastic Voyage *for the first hour because of its graphics of the human body which are well done, colourful and interesting. The micro-surgeon you play is not quite as well designed however. What you end up with is a sort of platform game with interlinked screens and some arcade action, but after a while of playing, the action becomes repetitive. I liked the way the cholesterol acts as a block, which because you can only fire sideways at it, means that in some locations it is like an impassable maze wall, forcing you round another way to get at it. Generally good looking, but lacking lasting appeal.'*

●'Come to think of it, I'm surprised no one has done a game like this before, but then again, the obvious is usually excluded. The game is interesting, as you pass around the body and attempt to keep the poor failing thing alive (and yourself at the same time). I never before realised how many nasties do actually float around in your blood. You could say that this game has actually taught me something. *Fantastic Voyage* has very nice graphics and there's plenty going on to keep you busy. Considerable skill is needed if you're to survive for more than a few minutes. One feature that impressed me is when you run out of energy you disappear, but you can still play the game as though you were really still there — only after the consumption of red blood cells do you reappear again. Overall an interesting game, very different, with a beautiful colour scheme, and I enjoyed playing it.'

COMMENTS

Control keys: preset as B/N left/right, SPACE to Pick/drop, P to swim and L to fire, but all these are user-definable
Joystick: Kempston, Cursor type
Keyboard play: very positive response, uses a gravity effect which is overcome by 'swimming'
Use of colour: very good
Graphics: well sized and smooth, the internal organs are convincing
Sound: very good effects, the continuous tune may be toggled on/off
Skill levels: 1
Lives: 5
Screens: more than 40 locations with every major organ and artery named
General rating: mixed opinions from below average to very good, playable and reasonably difficult.

Use of computer	82%
Graphics	74%
Playability	73%
Getting started	82%
Addictive qualities	70%
Value for money	69%
Overall	78%

S·P·Y H·U·N·T·E·R

simple game to get into and to play (this is also a point in its favour because it can be played by virtually anyone). I particularly liked the river scenes, they seemed more varied than the ones on the CBM 64 (I know I'm not meant to mention that calculator but I couldn't resist it considering I prefer the Spectrum version of *Spy Hunter*). If you want a good shoot em up *Spy Hunter* is well worth the money. Overall a good game that should keep you all amused for a while.'

Use of colour: very varied, bright and sharp
Graphics: attractive, good size and reasonably smooth vertical scrolling
Sound: spot effects, average
Skill levels: 2, novice and expert
Lives: 5
Screens: continuous scrolling
General rating: it may not have massive lasting appeal (although it is a good hi-score game), and it certainly isn't a thinking game, but loads of fun to play.

COMMENTS

Control keys: user definable, four directions and fire required
Joystick: Kempston, Sinclair 2, Cursor type
Keyboard play: ideal with UDK, very responsive

Use of computer	90%
Graphics	82%
Playability	89%
Getting started	88%
Addictive qualities	80%
Value for money	81%
Overall	89%

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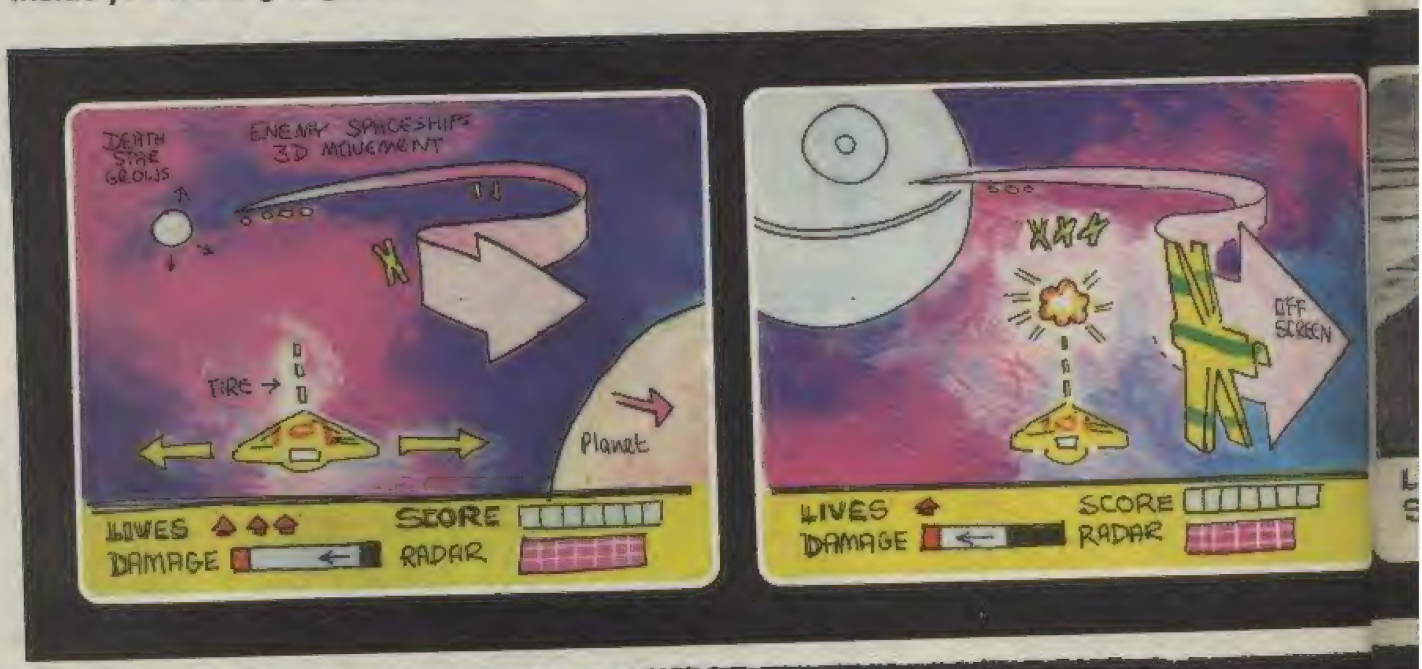
System 3 Shoot em Up Storyboard Competition — Have you got a brill Arcade game locked inside you waiting to get out???



Mark Cale, System 3 Supremo, visited the CRASH offices recently to talk to us about his company — and we'll be running a profile on System 3 very soon.

While he was in the office Mark couldn't resist the temptation to load up *Death Star Interceptor* and show off — he claims to be the reigning champion at the game and told us his hi-score was 89,000. This really has to be the ultimate in sliming — getting in hours of practice on an arcade game before it's even released!

He's not such a bad fellow, you know — before he left Mark gave us a few tips and hints to pass on to you, in case you want to have a go at knocking him off his perch! So read these tips closely, and if you get to beat Mark's hi-score on *Death Star Interceptor* take a screen shot and send it in to us marked 'KNOCK CALE OFF HIS PERCH', and we might make you famous! (Use the PO BOX 10, Ludlow address for your screen shots, and write your name and address on the envelope and the back of the picture).

So here's the hi-score tips for *Death Star Interceptor*:

1) Don't play with the keys(!)

2) On the first screen, you need to pull the joystick back to launch your ship. Once you're off the ground it's easier to control your flight if you push the joystick forwards, and then more left and right.

3) On the second screen don't go for points — on the later levels if you attack the enemy ships you'll get caught in the crossfire. You need to learn to fly the ship correctly, climbing and diving to avoid the enemy and learning to anticipate their movements. If you do decide to go for points on this screen, bear in mind that the command ship scores more.

4) When you're in the trench remember that the most hazardous objects are the laser guns at the side — if you don't shoot them, they fire a missile which you need to anticipate — and climb or dive to avoid it. You can sometimes fly under the laser barriers but you have to shoot some. If you're knocking out a cannon or barrier, climb to the top corner of the screen, fly to the left or right and fire. If you don't knock out the exhaust port, you can carry on flying through the trench picking up points.

5) On all screens, remember that if you fire diagonally — by flying at an angle — you get a repeat shot quicker.

Okay, so you're an arcade freak.

Now's the opportunity you've been waiting for — the chance to design the supreme shoot em up, the absolute tops in arcade action.

Mark explained that *Death Star Interceptor* started life as a storyboard with over twenty different drawings for the attacking ships alone!

Oliver Frey (Our Oli) has done a few sketches to give you an idea of how a storyboard for a game might look — and what you need to do is think up your game idea and commit it to a storyboard, with pictures of the various screens you want to use, and some details of the movements of the objects on the screens.

System 3 will use the best storyboard entered for this competition — if it's good enough for a game — and the commercial advantages of designing a game (ie money!) will be made available to the designer of the game. The winner and five runners-up will win a lifetime's supply of System 3 software for the Spectrum; and 25 people will get a copy of their next release due out later this year.

The only condition which applies to this competition is that you must not submit your storyboard to anyone else until after the judging, which will take place at the end of July.

Send your entries to SYSTEM 3 STORYBOARD, CRASH MAGAZINE, PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB to arrive before the closing date — 28th July. If you would like your entry returned to you, remember to enclose enough postage, and your name and address — else we'll have no tea in the office during Autumn (that'd make me and Lloyd dead crabby, and we'd stop reading your letters and dealing with competition entries, and you wouldn't want that, would you)?'

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WINNERS WINNERS WINNERS

GIFT FROM THE GODS Competition winners from Issue 13, February 85

50 winners of the game: AE Ahmed, HULL, HU8 9AR; David Bates, Solihull, B91 1VE; Rhodri Bowden, Petersfield, GU31 4JF; N Brightman, SHEFFIELD, S8 8QB; PC Brownlow, Newton, SK14 4JF; P Burrows, No Mans Heath, SY14 8DS; Robert Bush, Folkestone, CT19 5PG; Stephen Cotterell, Carlisle, CA3 0HN; Mark Coughlin, Caterham, CR3 5SB; Nick Crutchley, Chadsmoor, Staffs; James Davis, Bulkington, CV12 9LY; Daniel Denman, Chorleywood, WD3 5PW; Stevan Fairless, Kingston Parks, NE3 2XN; Peter Field, Dunira, PH6 2JZ; Mark Foster, Widnes, WA8 0BN; David Fleming, Littleborough, OL15 8PU; Mrs J Hadjikyriacov, Wanstead, E11; Miss Paula Hartill, Shanklin, PO37 7DU; Michael Hodgkiess, Dukinfield, SK16 5HS; Giles Ingham, Speldhurst, TN3 0QA; Susan Jolley, Warrington, WA1 3SX; Dagan Jones, London N8 8NR; Iain Jones, Welshpool, SY21 7RJ; P Kerton, Wentworth Park, N3 1YJ; John Lawrance, Chatham, ME4 6QR; R Leslie, Walderslade, ME5 8JD; David McCaffrey, Speke, L24 3XG; James Macnab, Lochwinnoch, PA12 4HB; Alasdair McNally, Bo'ness, EH51 0NR; Rosy Marshall, Edmonton, N18 1RQ; APA Morris, Windsor, SL4 4HQ; DJ Peart, High Wycombe, HP13 6BT; Alex Phelby, Worcester, WR5 3DY; Michael Pratt, Hunstanton, PE36 5JH; J Precedo, Stockwell, SW8 1XQ; Gary Prescod, LONDON, SE2 0PS; Mark Rackham, Wolstanton, ST5 8DE; Magnus Ramage, Milngavie, G62 8PG; Timothy Sayer, Margate, CT9 3XT; D Smith, Kingston upon Thames, Surrey; Andrew Stocker, Southport, PR9 7QB; K Stone, Fishponds, BS16 4HE; WG Strang, Woking, GU2 1UZ; Alan Thomas, Coleford, GL16 7QQ; MW Tooley, Cambridge, CB4 2UJ; A de Vries, DE PEGGE 2, Holland; Paul Watts, Ilfracombe, EX34 8JS; David Westmore, Tewkesbury, GL20 8BQ; Nick Windsor, Dalwood, EX13 7EY; SG Young, Garrowhill, G69 6PB.

CRASH QUIZ WINNERS from Issue 13 February

Matthew Withington, Rugeley, WS15 4DJ; Mike Eastgate, Addlestone, KT15 2PL.
Are the winners of £25 worth of software. The following four are the runners-up:
Alistair Taylor, Milngavie, G62 7NB; David Jolly, Chorley, Lancashire; JP Elsmore, South Croydon, CR2 7EJ; Ian Phillips, Tooting, SW17 0QN.

WINNERS OF THE BRUCE LEE COMPETITION (issue 14)

Julian Allen, St Clement, Kings Lynn; Neil Baker, Manchester M12 5HS; Mark Barbour, Slough SL3 0QH; Adam Barnaby, Durham DH7 0PW; JW Bragg, Ilford, Essex; Steven Bulbeck, Bognor Regis PO22 8LL; Mark Capstick, Addiscombe CR0 6NJ; J Collins, Wells-next-the-Sea NR23 1HN; C Coloman, London SE9 3DA; Michael Cook, Enfield EN1 3AQ; Mrs S Cooksey, Plymouth PL6 6HB; PW Dando, Prescot L35 3SH; Neil Davis, Christchurch BH23 4JN; Keith Edwards, Welling DA16 1EX; Paul Elliot, London SE17 2NN; James Ellson, Oxted RH8 0HY; Lynette Goodman, Olney MK46 4BW; Leon Gordon, Bath BA1 1XB; Stephen Groves, Glenfield LE3 8AF; Stephen Harris, Sale M33 4GA; Jonathon Hall, Cheadle SK8 3ET; DJ Henley, Wandsowrth, London; Stuart Hulley, Wrexham LL12 8NP; Ian Hutton, Luton LU4 9TH; Jason McConnell, London W7 3RG; D Jankinson, Altrincham, Cheshire; Mark Kaye, Barnsley, S Yorks; Sean Marriott, Bably DN4 0TU; Neil Morse, Swindon, Wilts; Craig Moss, Bretton, Nr Chester; Mark Nelson, Birmingham B19 2HY; M Newman, Cleethorpes DN35 7RQ; S Nolan, Walton L4 3SA; Tony O'Keeffe, Laindon SS15 5QB; Ian Phillips, Stratford-on-Avon CV37 7JH; Mark Rayner, Wembley; David Ridge, Stoke-on-Trent ST3 5NF; Paul Russell, Glasgow G81 6PP; Mark Shaw, Huyton L36 4NS; Mark Sibson, Ossett WF5 0PF; Michael Simpson, Preston PR2 3SU; GT Stonnell, Flitwick MK45 1RX; Jonathon Storer, Ilkley LS29 8SL; Craig Thornley, Nottingham NG15 8AB; Lee Tudor, Jarrow NE32 5JE; James Tulley, Norwich NR4 6BS; Jamie Valentine, nr Thirsk YO7 4EL; Ian Walsh, Barrow-in-Furness LA13 9QZ.

VOTING FOR THE ADVENTURE CHART

The CRASH Adventure Chart has picked up considerably since we first introduced it, with more and more votes coming in every day! To make life easier for sorting, we are now providing a separate write-in form, so please use it for the Adventure Chart, and not the one included at the bottom of the Hotline details. If you are voting on both charts, you may send both forms together in the same envelope of course.

How to register your votes

There seems to have been some confusion in the minds of voters for the Adventure Chart, so to clarify the situations, here's how we do it. You may vote for **as many titles as you wish** (not just five as in the Hotline Chart) and you may award any of them points out of ten. So, for instance, you might vote for seven titles giving each of them ten points if you think they are worth it, or only three and give them one each. These votes are then added up for each title and the total is divided by the number of people who voted for the program resulting in an aggregate figure. From these figures, the top thirty adventure games are taken in descending order.

Phoned-in votes are accepted over the Hotline **(0584 3015)** in the same way (please state that you are voting for the Adventure Chart at the beginning), and may also be written in letter form without the use of the coupon if you prefer.

Adventure Chart Prize Draw

And don't forget that, like the Hotline Chart, you can win prizes! Each month we draw a winner from the voters, who receives £40 worth of software and a CRASH T-shirt, with four runners-up each getting a T-shirt and a mini-subscription to CRASH for three months.

ADVENTURE CHART COUPON

Remember – points out of ten for as many titles as you wish.

Name .....

Address .....

.....

postcode

Send your coupon to: **CRASH ADVENTURE TRAIL, PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB**

CRASH HOTLINE WRITE IN COUPON
Please use block capitals and write clearly!

Name .....

Address .....

.....

Postcode .....

Send your coupon to: **CRASH HOTLINE, PO BOX 10, LUDLOW, SHROPSHIRE SY8 1DB**

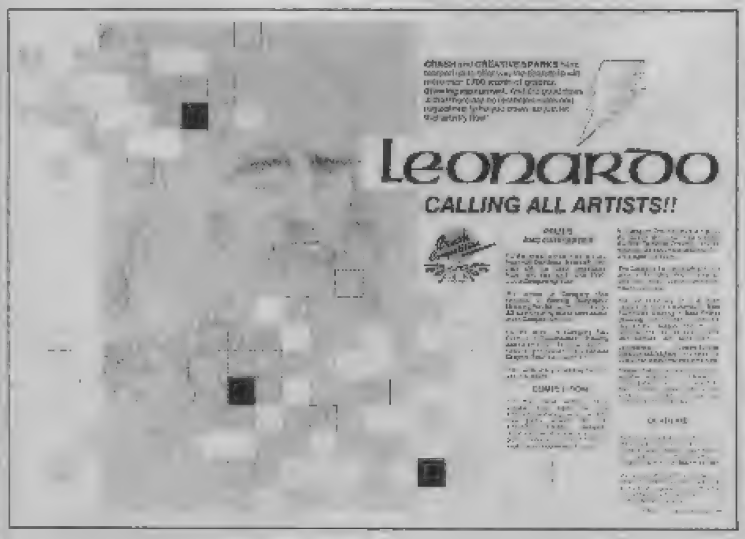
My top five favourite programs in descending order are:

	TITLE	PRODUCER
1		
2		
3		
4		
5		

A CRASH ART SPECIAL

LEONARDO — REINCARNATED!

Crash Competition



CREATIVE SPARKS first got in touch with us before Christmas, and we fixed up a mega-competition for all you artistic types out there. The idea was to get you all to do a bit of artwork, using their drawing package for the Spectrum - LEONARDO - and there were some really impressive prizes on offer.

You CRASH readers are a resourceful lot. LEONARDO's launch was delayed for some months while CREATIVE SPARKS added more and more features to their package of art utilities, and it didn't reach the shops until after the original competition deadline had passed. We still had some entries, but of course the entrants couldn't use LEONARDO, soooo.....here we go again!

Well (as Robin Candy might say), CREATIVE SPARKS are going to reward the people who entered the Xmas Comp before the closing date, which was March 31st. A complimentary copy of their program is on its way to them, so they've got a head start on the rest of you.

There are three categories in LEONARDO, THE COMPETITION, Mark 2: ***Category One*** is for artwork which makes innovative and imaginative use of LEONARDO's facilities — there are no restrictions for this category as to subject matter, feel free to express yourself! ***Category Two*** is for Posters — these can be to advertise an event, a portrait of a media megastar — in fact anything you like. ***Category Three*** is for technical drawings — and once again, you can choose your subject material as long as you use LEONARDO to produce the final piece.

Now, unless you are mega-rich, very lucky or both, you probably won't have access to a super whizzo printer to actually produce your entry in hard copy form. So we'll be quite happy for it to arrive on cassette but you must write your name and address on a sticky label which is firmly stuck to the cassette body, not the library case. And even if you can get a print out, we still want the cassette file of the artwork.

CREATIVE SPARKS aren't messing around when it comes to prizes. Category One's (Most Amazing Piece of Artwork) winner will pick up a Devilbliss airbrush with hoses, compressor and a supply of inks — worth some £300 — and a Datapen light pen.

Category Two's (Best Technical Drawing) winner will have a Rotring Isographic Drawing Pen Set, a Datapen light pen and an A2 drawing board on a stand.

Last, but not least, Category Three's (Best Poster) outright winner will scamper off with a Touchmaster Drawing Pad. Five runners up will inherit the Letrajet Graphic tool, a tidy £25 worth.

Let there be no confusion — you can enter a poster, or a drawing, or a stunning piece of artwork, and you can enter one, two or three categories so long as you send a separate entry for each category. Only one entry per category per person and each entry must have been put together with LEONARDO. OK?

Get going....closing date for the Leonardo competition is 25th July. Entries to LEONARDO II, PO BOX 10, LUDLOW, SHROPSHIRE, SY8 1DB

FRONT

FROM OUR CORRESPONDENT AT THE FRONT
ANGUS RYALL

THERMO-NUCLEAR WAR

Publisher: Zircon Software
Memory required: **48K**
Retail price: **£5.95**
Language: **BASIC**

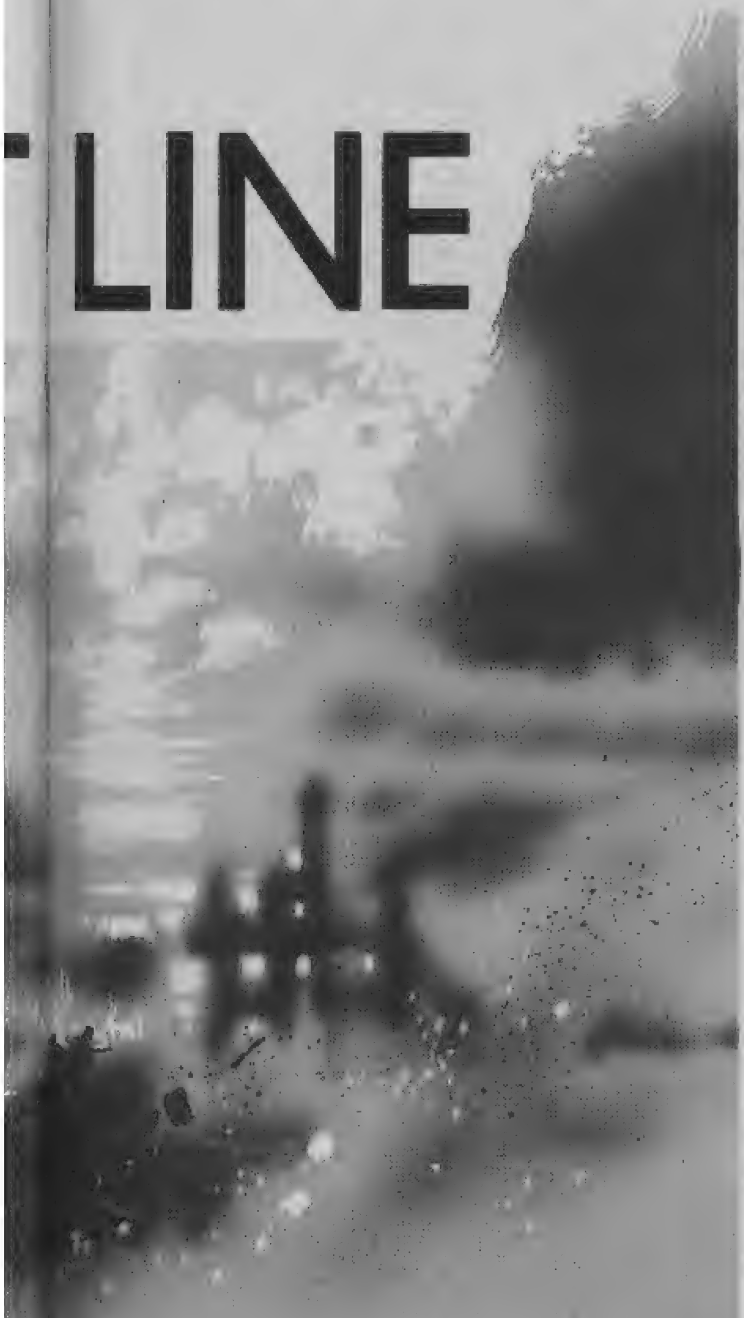
Well, let's kick off with a really snappy little title here. I suppose this had to come sooner or later, but wouldn't something a bit less staid have been in order? Like *Manic Minuteman*, or . . . er, . . *Raid Over Moscow*? (Originality knocks).

Sadly, or maybe fortunately, this pathetic little program doesn't even live up to its brazenly forthright name, and certainly doesn't compare with the aforementioned Raid in terms of playability. It's very unlikely that you'll come across any copies of this, so I shouldn't really be too worried about you buying it, but for what it's worth, don't.

What happens in the game is that you are a hacker who has broken into the NATO Strategic Air Command computer, and you have to defend NATO from a nuclear attack. Whether this attack is genuinely Russian, or computer induced à la War Games is not made clear.

Russian missiles of varying types attack your six bases at Greenham, Essex, White Rock etc, and you have to: 1) shoot them down with your defensive missiles; and 2) fire your offensive missiles at the Russian bases.

Despite the fact that this scenario raises a number of immediate questions, such as whatever happened to the ABM Treaty? Did Nixon lie to us about that as well? Where are the killer satellites? What is the point of the Russians attacking Greenham when the Cruise Missiles are all being launched from trailers in the car park of Watford's new Sainsbury's? (well, it's not designed for cars, is it?) Why are



the Russkies being such gentlemen and not attacking our cities? And of course, why are we being so nice and not going for Moscow, Novosibirsk, etc?

Leaving aside all these questions of life and death (ha ha), the question uppermost in my mind is WHAT IS THE POINT IN A 6v6 MISSILE GAME WITH NO GRAPHICS? This is a bit like a very simple version of 'Missile Command', without any pictures. Certainly no *War Games* stuff here.

And another thing — Sinclair are currently on the verge of tying up a mega-deal with the Eastern Bloc to supply thousands of ZX81's and Spectrums — probably to put in the cockpits of their MIG25s (well, they've got to be better than the pilots) and generally beef up their military capabilities. Now, I know that it takes the entire acumen of York University's DEC10 mainframe simply to determine the best route from Greenham Common to Watford Sainsbury's, and that the Russkies are going to be in for a shock when they try to run their anti-killer-satellite-missiles off the old dead flesh keyboard; but the thing is, one glimpse of *Thennonuclear War* and the whole deal is going to be off. And then what chance to we have of persuading them to trade in their 17 ageing tank divisions in East Germany for a fleet of C5s? No! This game must be stopped — it could destroy western civilisation.

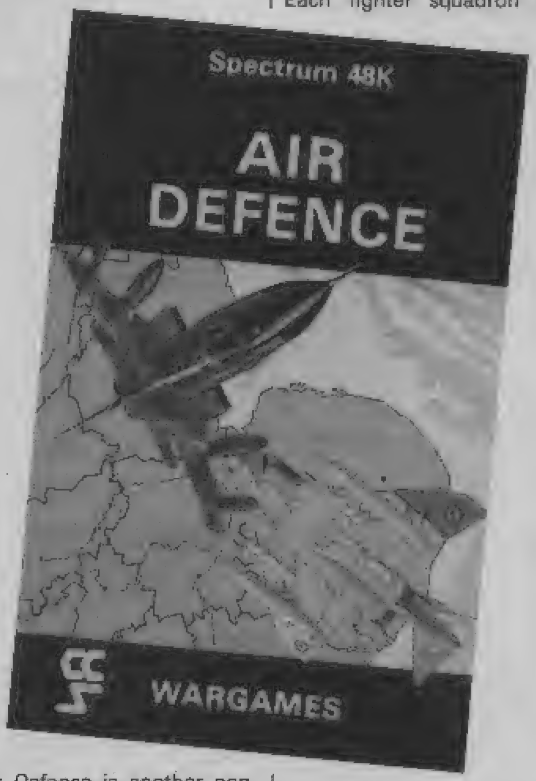
More facts about the game: it is entirely in BASIC and has two spelling mistakes on the loading screen. One of the messages in the game says LEAVE PLAY DEPRESSED. Too right Mikhail!

Overall rating: Even if nuclear war is your scene, this won't be.

AIR DEFENCE

Producer: CCS
Memory required: **48K**
Retail price: **£6.95**
Author: **by Almart**

What sort of name is Almart anyway? Who are these people? *Air Defence* is yet another game published by CCS — if that sounds admonishing it isn't, it's actually praise. I can't see myself quite how CCS manage to make any money, producing (as they do) solely minority interest products; but they obviously do, because the games are improving all the time — see the *Nato Alert* review.



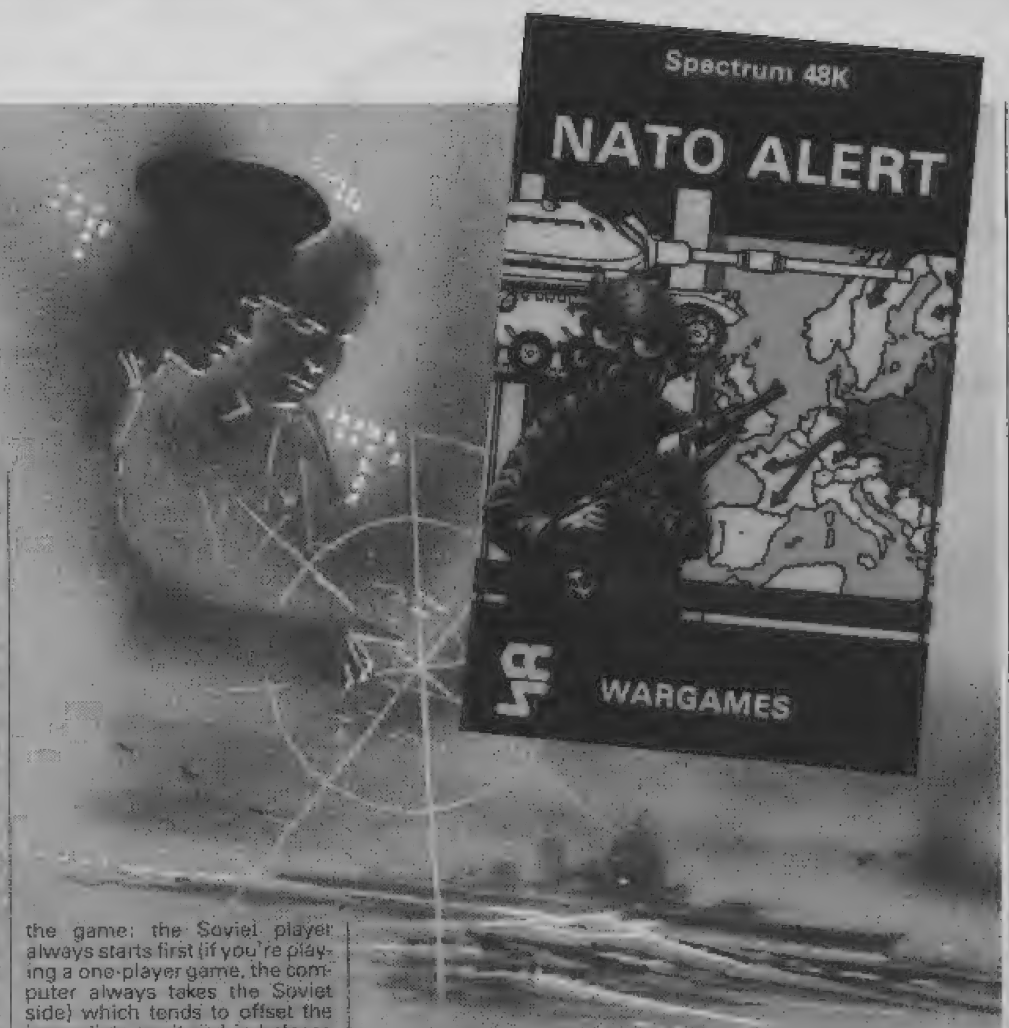
Air Defence is another non-nuclear wargame (well, I assume it's non-nuclear because targets suffering bomb damage recover after a set number of turns — and it doesn't say anywhere that each turn is twenty five years long).

What happens in the game is that you are charged with defending ten targets — six airfields, one radar station, one naval installation, a factory and your HQ. Your aircraft operate from the airfields, and all the other targets are important too — radar for spotting incoming raids, the factory for re-arming your aircraft, and the navy because they have missiles they can use to assist you. Lose your HQ and you lose the game.

The enemy sends twenty bomber raids over to destroy specific targets, and you have to shoot them down with your ten fighter squadrons, assisted by two airborne tankers and two AWACs (early warning radar) aircraft. Sound simple? It isn't. Even with your two AWACS in forward deployment, your radar cover still doesn't cover the map, so you can't see all the raids coming in, until sometimes they're right on top of you. The bomber raids have fighter escorts as well, and you need numerical superiority to defeat them and destroy the raid. Your fighters only have limited supplies of fuel, and using reheat (to fly faster) uses it up much faster; you can refuel in flight, or you may have to return to base. Weapons are also finite, and when they have run low (after three or four engagements) the squadron must return to base to re-arm — which takes four games turns (on the ground — and usually another two or three to get there). Any raids not destroyed will return later in the game with a new load of bombs. Each fighter squadron starts with twelve planes, which tend to get depleted in engagements and can't be replaced. This means that returning raids could well have more fighters than any of your squadrons, so knocking them down would be a problem.

The fairly complicated decision making in the game is greatly heightened by the real-time element — you have to make your choices from a menu, which is only displayed for around five seconds. You can pause the game and have a ponder, but each release takes up about half a second, so you really only make about eight to ten moves in every turn, and using one of those moves on a 'pause' may be very inconvenient at some points in the game. Once you have selected a course of action from the menu, for example, 'Allocate', the clock

NATO ALERT



Producer: CCS
Memory required: **48K**
Retail Price: **£6.95**
Author: **Norman Smith**

I had an uncanny sense of déjà vu looking at this game. I thought I'd seen it all before, and indeed I had — I'd seen a copy of this when Norman Smith was hawking it around last autumn under the title of *Empire Wars*. The original title is in fact more appropriate, because this is a simulation of NON-nuclear conflict in Europe that could apply to virtually any time, although it is set in the present day.

Europe is divided into two blocs, with the various neutral countries allying themselves with either one bloc or the other. Although this may sound a bit too convenient to be realistic, the evidence of both World Wars is that most neutral countries do fall by the wayside, either through compliance or force. The European continent is divided up into 33 countries and 12 sea zones (the USSR being treated as 3 'countries'), which are shown on a map which occupies about two thirds of the screen. You set the objective at the beginning of the game, by deciding the number of countries you intend to occupy (from 1 to 21) and also the difficulty level (1 to 5). You are given a one or two player option. It's relatively easy to beat the computer at level one, but on level five it's extremely difficult — I managed to hold out on level five for over an hour, but I've come nowhere near winning on anthing over level three.

As you can probably imagine, this game can take quite a while to play, so there's a Save Game option included, which is handy. Anyway, on to the mechanics of the game: the Soviet player always starts first (if you're playing a one-player game, the computer always takes the Soviet side) which tends to offset the immediate territorial imbalance — they typically seem to grab four or five weaker countries, such as Greece and Finland, on the first go. The Soviet ships will also start attacking and conveying moves.

As each of your countries/sea zones is attacked, you are shown a strength chart, which also indicates casualties on both sides, for armies, fleets, air divisions and factories. When the attacker has a two to one majority in military strength, he occupies the country. Once it is your turn you are taken through each of your countries in turn, and have to select a course of action for each. You move your armies, fleets or aircraft to adjacent countries/zones (aircraft can move two zones) or you can attack enemy countries which are in range (ie adjacent for armies and fleets, two zones away for aircraft). Aircraft can knock out two armies; but though each army is deemed to be equal in strength, attacking armies will come off worse than defending ones unless there is an overwhelming number of them (I think the ratio is two to one).

After making your move, you have to decide what to do with the country's resources — each country has an output level, which is determined by the number of factories it has. You have to use the output points to build up more weapons (armies, aircraft, ships) or more factories. Each factory has an output of four points; and an army costs one point, aircraft three, ships two and a factory four. This adds a remarkable amount of strategic juggling — you can only build one type of unit per country per go, so for example at the start of the game when each country only has one factory it is very inefficient to build aircraft — but that is precisely the time when you need them to knock out enemy factories and contain their armies' numerical superiority. Also do you knock out the enemy's production capacity, or try to capture it intact, so that you can build with it yourself?

Each country is allowed a maximum of five factories and obviously, one tends to concentrate production capacity in better protected countries, such as Ireland and Portugal so as not to lose the factories to the enemy. A very clear picture of the problems associated with lengthy supply lines and military movement emerges, and helps to reinforce the atmosphere of the game.

NATO Alert is a strategy game concerned with the general scope of warfare, and the logistics of lengthy campaigns. In this respect it is very good but it lacks realism in some important aspects: no account is taken of chance events, such as the weather (which has defeated all previous attempts to defeat Russia, for instance) and geographical distances are rendered meaningless by the fact that you move from capital to capital. Some of the game's responses are also very, very slow, such as when you are moving the cursor to where you wish to attack, which seems to take about ten seconds per square.

And it would have been nice to have had more flexibility over the Empire's centres, as in *Apocalypse*. Perhaps the release of an extra scenario tape would solve this problem — it's a bit theoretical, but very challenging. CCS's games are definitely improving.

Overall verdict: It's great to have a non-nuclear European wargame — and this is a very good one indeed.

AIR DEFENCE

stops while you select which squadron, which raid it is to be allocated to, and whether or not you want to reheat. As your airfields get damaged, so you have to switch the squadrons' bases about, and so on. Once sent off to shoot down a particular raid, a squadron will carry on until they either succeed, or fail or you change their orders (obvious really).

This is a subtle game, and excellent as an exercise in tactics; the lightning-fast decision-making required to make the most of each 'go' (you alternate with the computer) compensates for the relatively small number of units you have to play with.

One gripe (as always) please, please, please CCS can you get rid of those horrible map co-ordinates for position selecting. Why can't we have a cursor? I can't see that it would be much more expensive in terms of memory, especially not since this is largely a machine code game.

Overall rating: not as good as *Nato Alert*, but a good start at a genuine real-time wargame.

PS Those of you who've been waiting with baited breath to see whether my roof will fall in or not, will have to wait until next month. I'm afraid I'm going on holiday. Yippee! So I haven't got time to write any more now.

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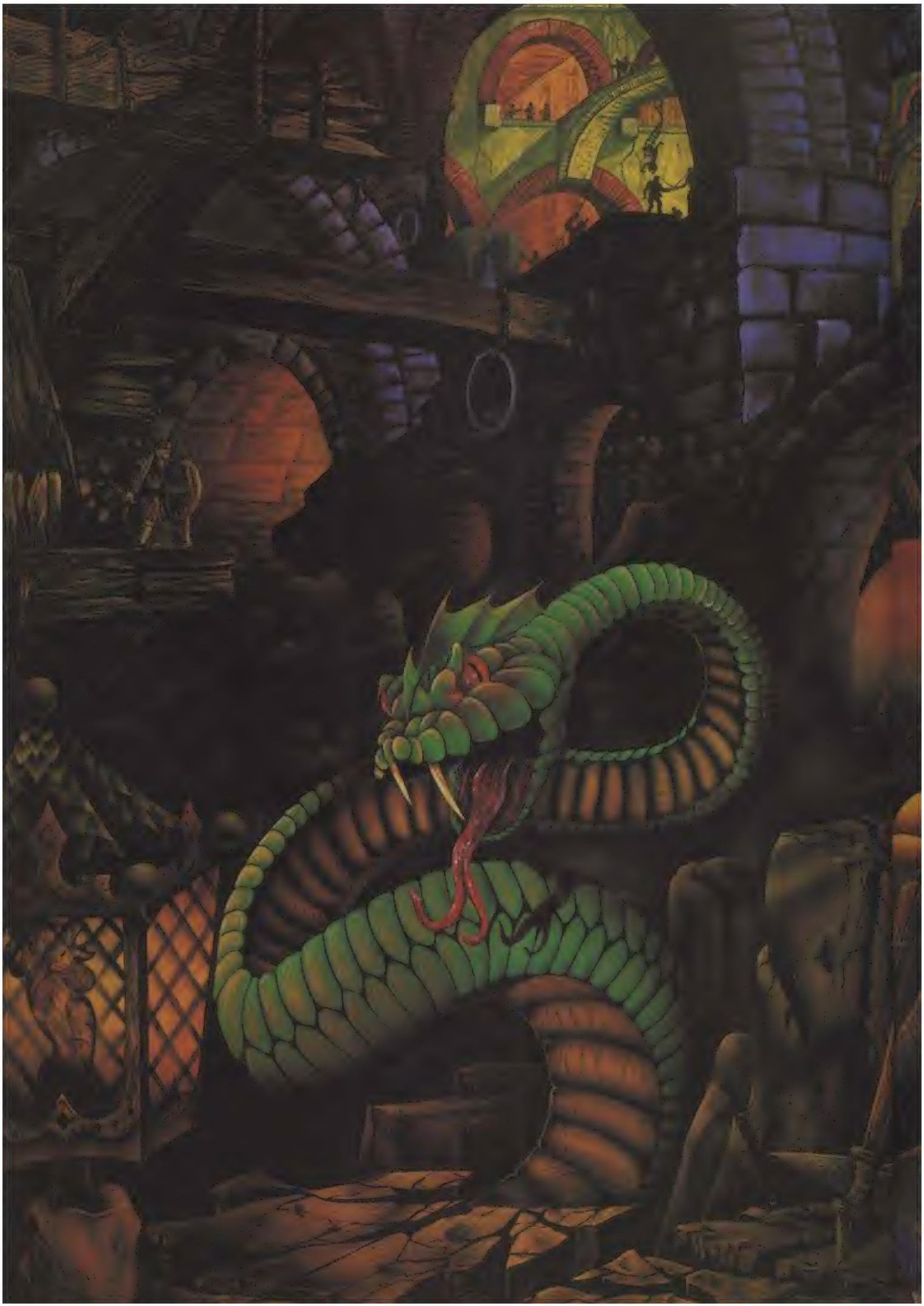


COLOSSAL ADVENTURE - Level 9

PRACTICAL EGYPTIAN MAGIC - Thorsons Publishing

ON THE COVER

Our last two ON THE COVER artists have largely worked with space and violent action for their cassette covers. **GODFREY DOWSON**, *the man behind Level 9's posters and covers, is different in style and temperament. Like Steinar Lund, he has also done a commission for the old Imagine, but unlike Steinar Godfrey was a little less lucky. . . .*

Oh Dear!

Another innocent party who suffered from the demise of Imagine comes into our office. Will it never end?

Godfrey Dowson started his software illustrating career with a painting called 'Mega Vault', which was commissioned by Imagine, never used and never paid for.

A self-taught artist, who used to be an engineer working with gas turbines in Lincoln of all things, Godfrey moved to Wales in 1976 and spent a few years in a cottage overlooking a lake, completing his portfolio. Then he launched himself into the world as a freelance illustrator and followed his interest in fantasy and knowledge of magic by completely redesigning a deck of Tarot cards. Work for the Aquarian press followed, and then Granada books commissioned some of his work.

Fortunately, he wasn't put off working for the software industry by his experience with Imagine, and began work for Pete Austin of Level 9, starting with artwork for *Red Moon*. Godfrey has now completed around ten titles for Level 9 and has almost become their in-house freelance.

Working in inks and gouache, using an airbrush and then overpainting with a brush, Godfrey spends three or four weeks working on a painting after producing a rough in a couple of days from his client's original brief. He takes pleasure in re-

Photo: Nicholas Sack

THE PUMP

SNOWBALL - Level 9

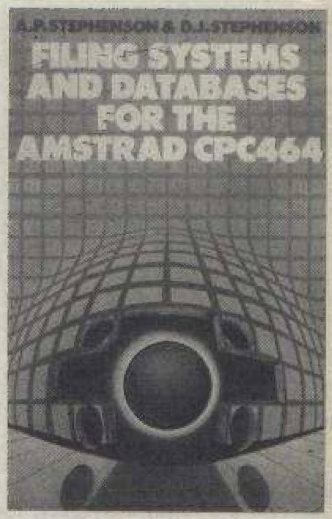
searching his pictures — visiting an aircraft museum to sketch a B52 for instance, which then appeared on the seabed in one of his illustrations!

Godfrey's first love is fantasy and his career began with science fiction and magic illustrations. He enjoys placing objects in unusual settings — a grandfather clock appears in a primeval swamp in his artwork for Level 9's *Lords of Time* for instance.

This year three specialist computer books have been published with intricate geometrical pieces painted by Godfrey on the covers: —3Filing Systems and Databases for the Amstrad; *Microcomputer Puzzles*; and *Working with MSX Basic*. His work has also included some 'Romantic' illustrations for a Swedish publishing house, and work for a book published in Germany which is used as a textbook for teaching English.

Godfrey lives in an Elizabethan manor house on the Welsh border with his wife and a bevy of cats, making occasional excursions to London to see art directors, agents and other people essential to the freelance illustrator, and generally catching up on developments in the illustrating world. He is grateful to be able to return to the peace and quiet of his home to work after these forays however.

'The high point of my career so far', Godfrey told us, 'came when one of my illustrations was selected by the judges of the Benson and Hedges Gold Awards. My picture, on the theme of time, was one of the fifty illustrations chosen from some six hundred submissions and is now part of a touring exhibition'. Not suprisingly, Godfrey smokes B&H!

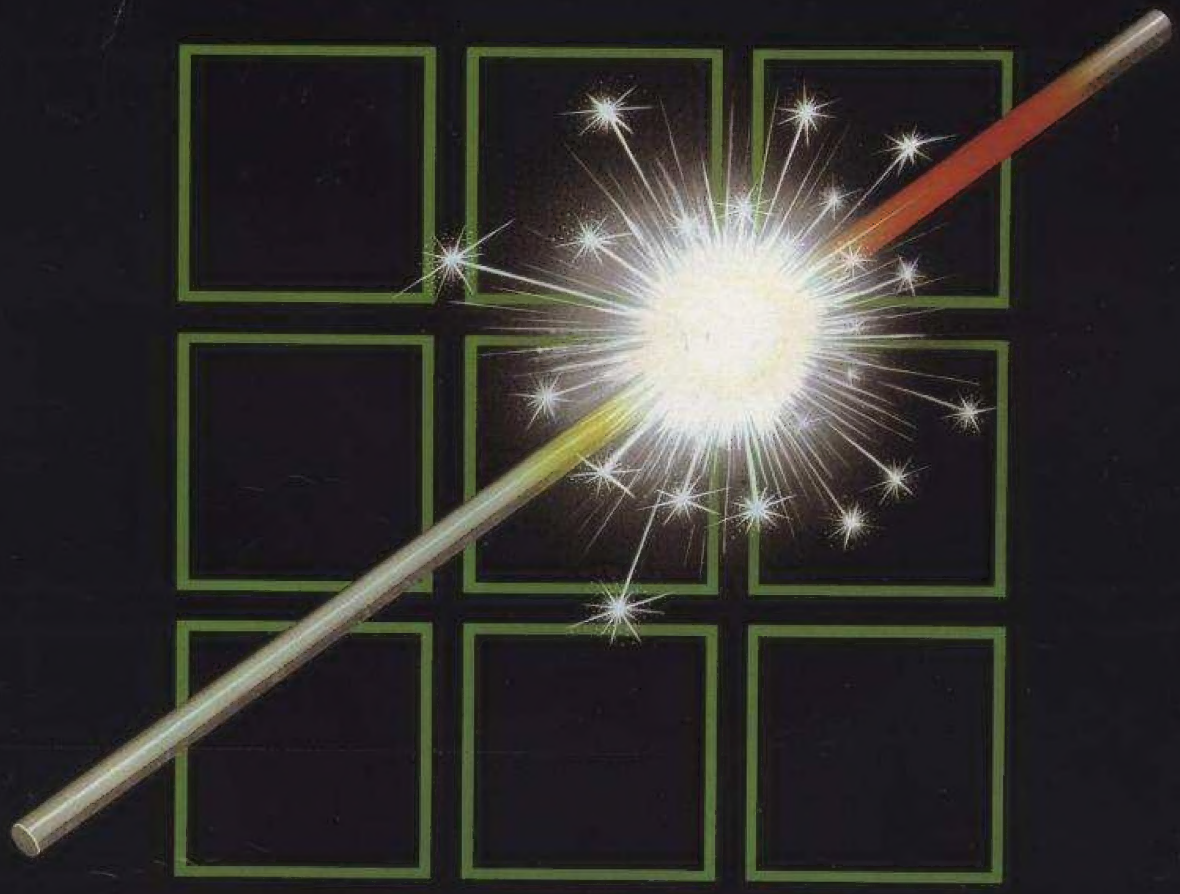


Collins/Granada

'I don't like too much of the same kind of work', he says, 'I like to be able to chop and change a bit'. Godfrey had better keep on his work for Level 9, or he'll be in trouble with the team behind ZZAP! 64, our other organ. When Chris Anderson, ZZAP! Supremo, learnt that we were interviewing Level 9's artist, he was quite jealous. Apparently the ZZAP! office walls are covered with Godfrey's posters . . . and they simply can't afford to commission a Godfrey Davis original — ZZAP! hasn't even got a tea kitty (Tea Hee!).

INCENTIVE

CONFUZION



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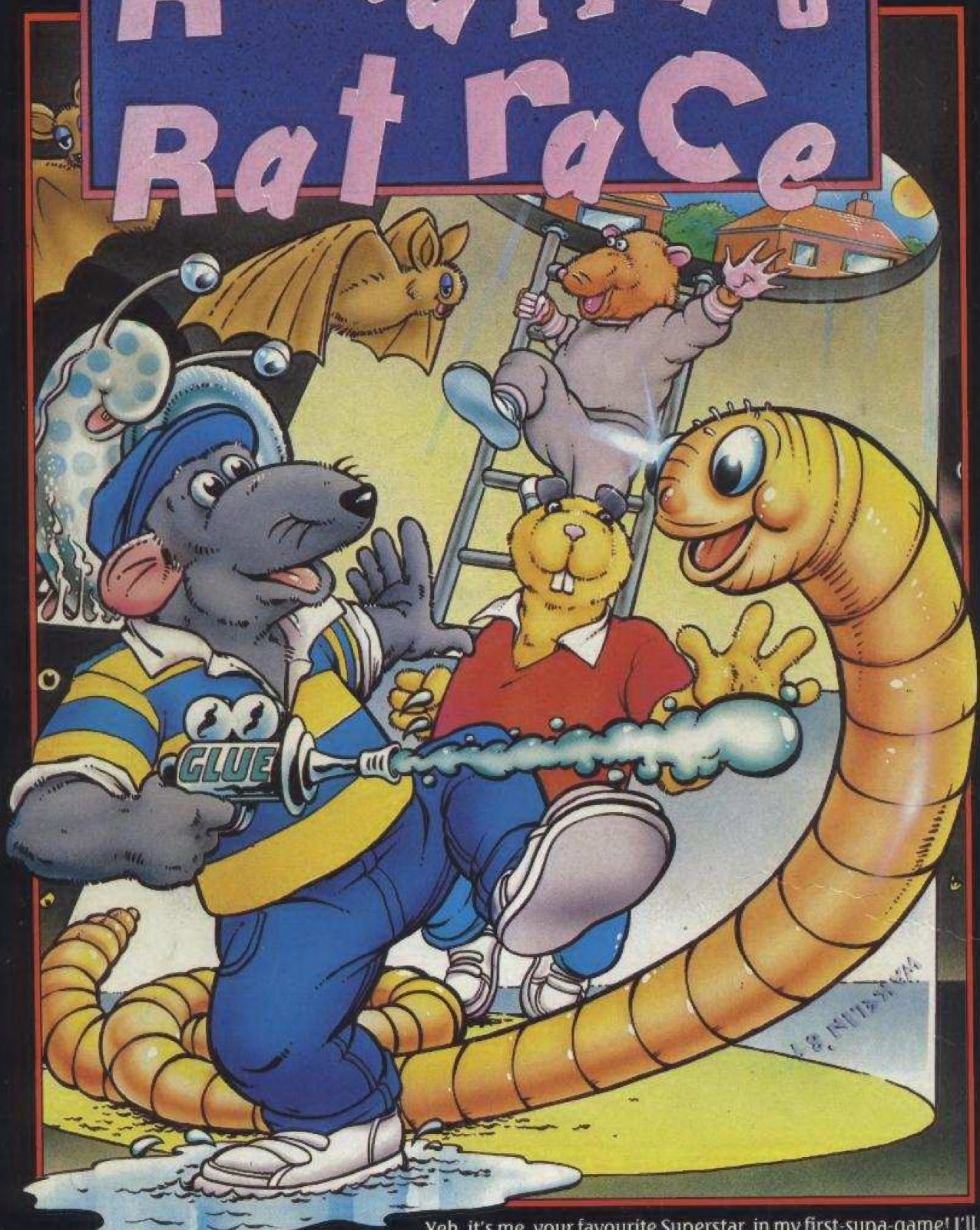

Yeh, it's me, your favourite Superstar, in my first-supa-game! I'll need all your help to find my furry friends in the nasty Rodent World where all kinds of monster meanies live. Hurry now, and I'll see you on your screen, from your cuddly, adorable me, Roland Rat, Superstar.

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